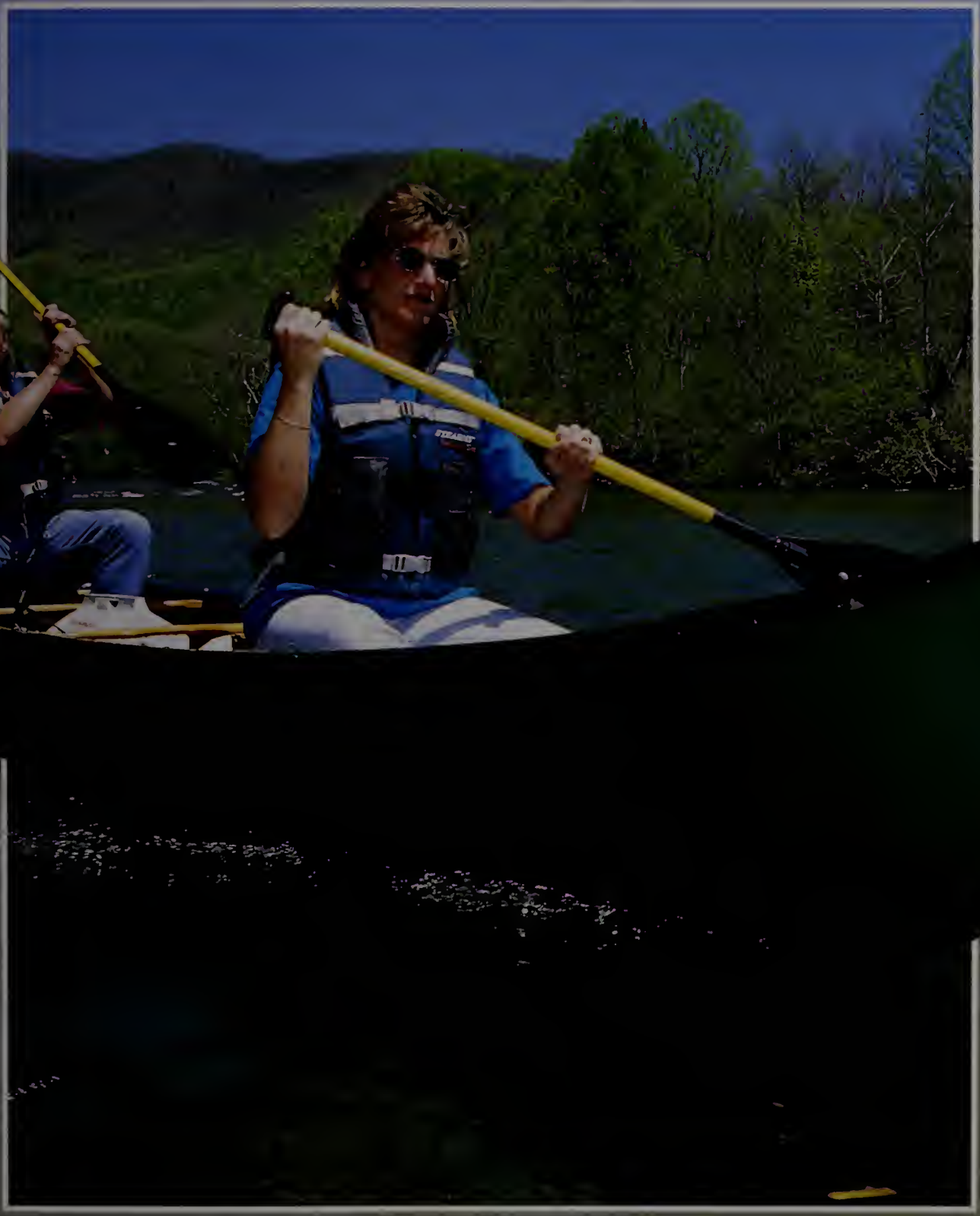
VIRGINIA WILDLIFE

JUNE 1997 ONE DOLLAR



Director's Column

William L. Woodfin, Jr

Lee Walker

Prominent Virginians Establish Foundation

For those interested in fisheries and wildlife management in Virginia, May 5, 1997 was a day of banner headlines. It was announced to the Board of Game and Inland Fisheries that a number of prominent Virginians had established a new bipartisan, private-sector organization with the goal of supporting wildlife management in our state.

It's named the Wildlife Foundation of Virginia, Inc., and its board includes Virginia's two U.S. Senators, three of our former governors and several outstanding leaders from the private sector. The purpose of the foundation is to create a public-private partnership that will provide a means for Virginians, and others, to show their support for the best possible management of Virginia's wildlife and fisheries resources.

What does this mean for the sporting public? The answer is found in the example of the Dutch Gap Conservation Project at Henricus Park in Chesterfield County. The Dutch Gap Conservation Project became the first wildlife conservation area in Virginia to be created with the support of state government, local government and the private sector. Key players who were later to form the Wildlife Foundation of Virginia provided the necessary private sector leadership to make this partnership a reality, with major financial contributions from two public-spirited Virginia companies, Tarmac America, Inc., and Virginia Power. Chesterfield County also made an important grant to the project and some grant funds from the federal government were also used.

The benefits of this approach are there for all to see. The area was once the site of a gravel quarry and then, as it was reported, it became "a retreat for privileged hunters and a prime fishing spot for those who could navigate the James River's narrows." Now, thanks to this successful public-private cooperative effort, there will be greater access for fishing, and other recreational opportunities will be added, such as camping, hiking, and bird watching.

With the impressive people involved with the Wildlife Foundation of Virginia, this may be just the beginning of what can be accomplished across the entire state. As one founding board member said, the group "came together as citizens with the same concerns about the future of our wildlife resources. We applaud the efforts made by all groups who are concerned about land and habitat management, and feel that the presence of the Wildlife Foundation of Virginia will complement and not compete with these efforts."

The vastly expanded and developed recreational opportunities along the James River at Dutch Gap will be enjoyed by more people than ever before. The Dutch Gap project exemplifies how the foundation could provide significant conservation leadership on behalf of the sporting public and all other citizens. A statewide repetition of this foresight and leadership could benefit the Department and generations of Virginians to come. □

Mission Statement

To manage Virginia's wildlife and inland fish to maintain optimum populations of all species to serve the needs of the Commonwealth; to provide opportunity for all to enjoy wildlife, inland fish, boating and related outdoor recreation; to promote safety for persons and property in connection with boating, hunting and fishing.

Joe Mitchell is looking for young amphibians. He finds them in potholes called vernal pools, page 23.

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Bob Gooch is a travelin' Virginian who has seen and written about many wonders of the great outdoors. His story about floating one of our great rivers will make you want to strap your canoe to the car and head for the Rappahannock River, page 19.

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Dedicated to the Conservation of Virginia's Wildlife and Natural Resources

VOLUME 58 NUMBER 6

With the proper training, the right equipment and good friends, a kayaker is ready to enjoy Mockhorn Island on the Eastern Shore.

by Jim Kastetter
Photos by Dwight Dyke

Some parts of Virginia are best seen from a canoe or a kayak. In the case of Mockhorn Island, a sea kayak is the right choice. But even with the right equipment, access doesn't come easily. Even the name, "Mockhorn," gives the would-be visitor a sense of the fun and the difficulties involved with getting a real good look at this wildlife management area overseen by the Virginia Department of Game and Inland Fisheries.

A tidal marshland with an area of more than 7,000 acres, Mockhorn Island presents some very real challenges for those who wish to visit it. Much of the island disappears when the tide is full, and the water approach is made difficult because the

ea Kayaking

bottom shallows out too much for power boats, about 150 to 200 yards from the nearest shore.

The tidal floods dictate that the major vegetation be saltmarsh cordgrass, but on the hummocks that remain above water there is a wide variety of plant species. Green brier, honeysuckle, loblolly pine, red cedar, and, yes, poison ivy are abundant in this unique region.

It's a wild, untamed area, and it's destined to stay that way.

The focus of the management on Mockhorn Island is the preservation of its natural state, which is just fine with Mother Nature who keeps enough play of wind and waves on the island to make most attempts at habitat manipulations impossible.

This pristine environment provides an attractive haven for a diverse population of wildlife. The tidal marshland of Mockhorn Island hosts sizeable populations of bufflheads, goldeneyes, black ducks, and Atlantic brant on or near the island. Sea ducks, including old squaw and scoters, are present on open water.

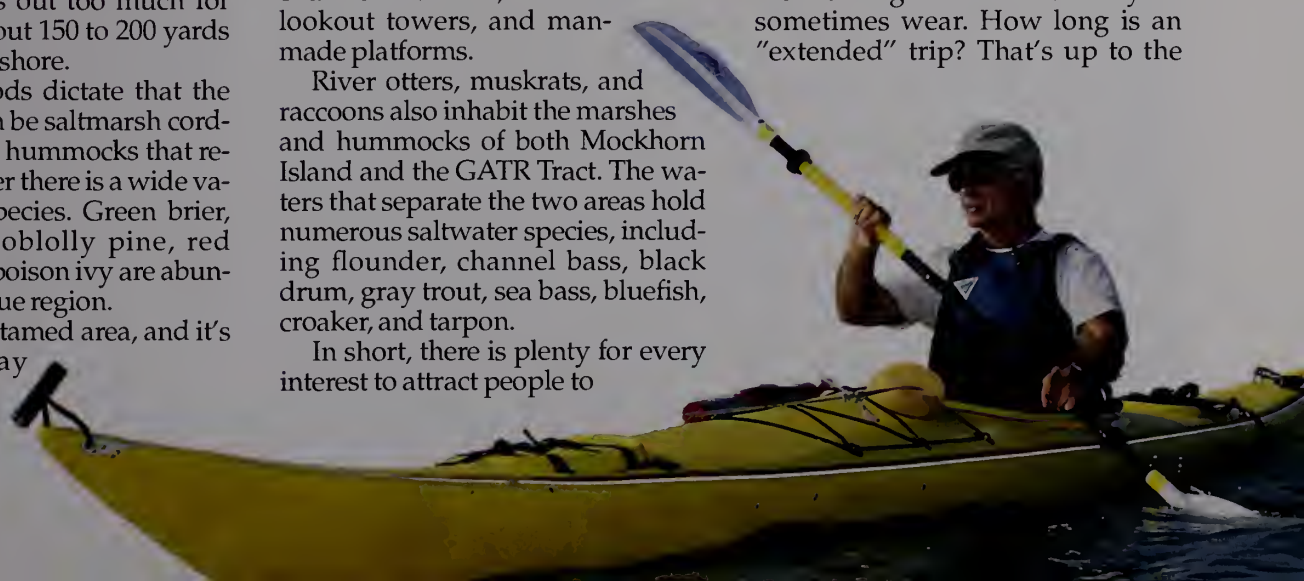
Hunters will relish the excellent opportunity the island presents for hunting clapper rail and waterfowl, and the GATR Tract, a 356-acre mainland piece of the Mockhorn Wildlife Management Area is open to deer hunting only during the early archery season.

It's also a bird-watcher's paradise. The low shrubs and trees are home to herons and egrets, and gulls, terns, and a wide variety of other sea and shore birds frequent the area. Ospreys nest on buoys, channel markers, old submarine lookout towers, and man-made platforms.

River otters, muskrats, and raccoons also inhabit the marshes and hummocks of both Mockhorn Island and the GATR Tract. The waters that separate the two areas hold numerous saltwater species, including flounder, channel bass, black drum, gray trout, sea bass, bluefish, croaker, and tarpon.

In short, there is plenty for every interest to attract people to the Mockhorn Wildlife Management area. But the shallow waters keep most people from anything but a distant glimpse of all that Mockhorn offers. That's why there are sea kayaks.

The reason that most folks have only white water visions of kayaking is that they don't realize that there are two very different kinds of kayaks. White water kayaks are the impish little brother, bouncing down rocky rapids, shooting over waterfalls and getting all the photojournalism coverage. Sea kayaks, also called touring kayaks, are the mature big brother, safe, comfortable, reliable. They don't get the exposure their daredevil sibling gets. But an ever-widening number of recreationists are finding the charms of the sea kayak irresistible. Sea kayaks range from 17 to 22 feet in length and may have either one or two cockpits. While the added length does cut into the boat's maneuverability, it provides ample space for storage of standard camping gear for extended trips—tent, sleeping bag, food, clothing—hence the "touring" label that sea kayaks sometimes wear. How long is an "extended" trip? That's up to the



Kayak classes are available ***(above left)*** *in various locations as this one at VDGIF Richmond Headquarters. Increased knowledge leads to safety and confidence necessary to enjoy the adventure of a Mockhorn trip.*

paddlers. Danish museums display sea kayaks that Greenland eskimos paddled to Denmark's shores several hundred years ago.

Sea kayaks are a little wider, too, and that's a good thing. The extra width, up to 32 inches, means that sea kayaks are much more stable than their white water kin. Sea kayaks are designed to slip through rough seas and breaking water with just a little help from the paddler. Another advantage of the width is that the learning curve for a neophyte paddler is neither steep nor long.

Another of the sea kayak's features that aids every paddler from beginner to expert is the rudder. This is where the eyes of those who have never seen a sea kayak begin to glass over. A rudder? On a kayak? That's right, and it's another good thing.

The rudder is an external assembly that is controlled by foot pedals attached to the rudder by cords and pulleys. The double-bladed paddle supplies the power and a slight pressure from either foot provides the guidance. The rudder is also retractable with a quick pull of a line next to the cockpit. This allows the sea kayak to glide smoothly through water just a few inches deep, and this makes the shallow edges of Mockhorn Island suddenly accessible.

There are even ways to minimize getting wet. The simplest way is to avoid choppy water. But stability in choppy water is a part of what sea kayaks are designed for. Sea paddlers wear a "spray skirt," a waterproof gizmo that fits around the paddler's waist and fits over the cockpit cowling by an elastic cord. Paddlers who take on more vigorous seas will usually add a "sea sock" to their optional gear. A sea sock is a water-proof cockpit liner that keeps water from entering the

storage areas of the touring kayak. Some sea kayaks have water-tight compartments that eliminate the need for a sea sock.

In the unlikely event that the kayak should capsize, the paddler simply pulls the spray skirt from the cockpit edge and rolls out of the kayak. The sea sock will keep water from entering the boat. No eskimo rolls here. The stable beam of sea kayak allows the paddler other options. Once the boat is righted, the sea sock is emptied of any water, and the kayaker pulls himself back in. For obvious reasons, paddlers, regardless of skill level, should always wear personal flotation devices just like all small boaters.

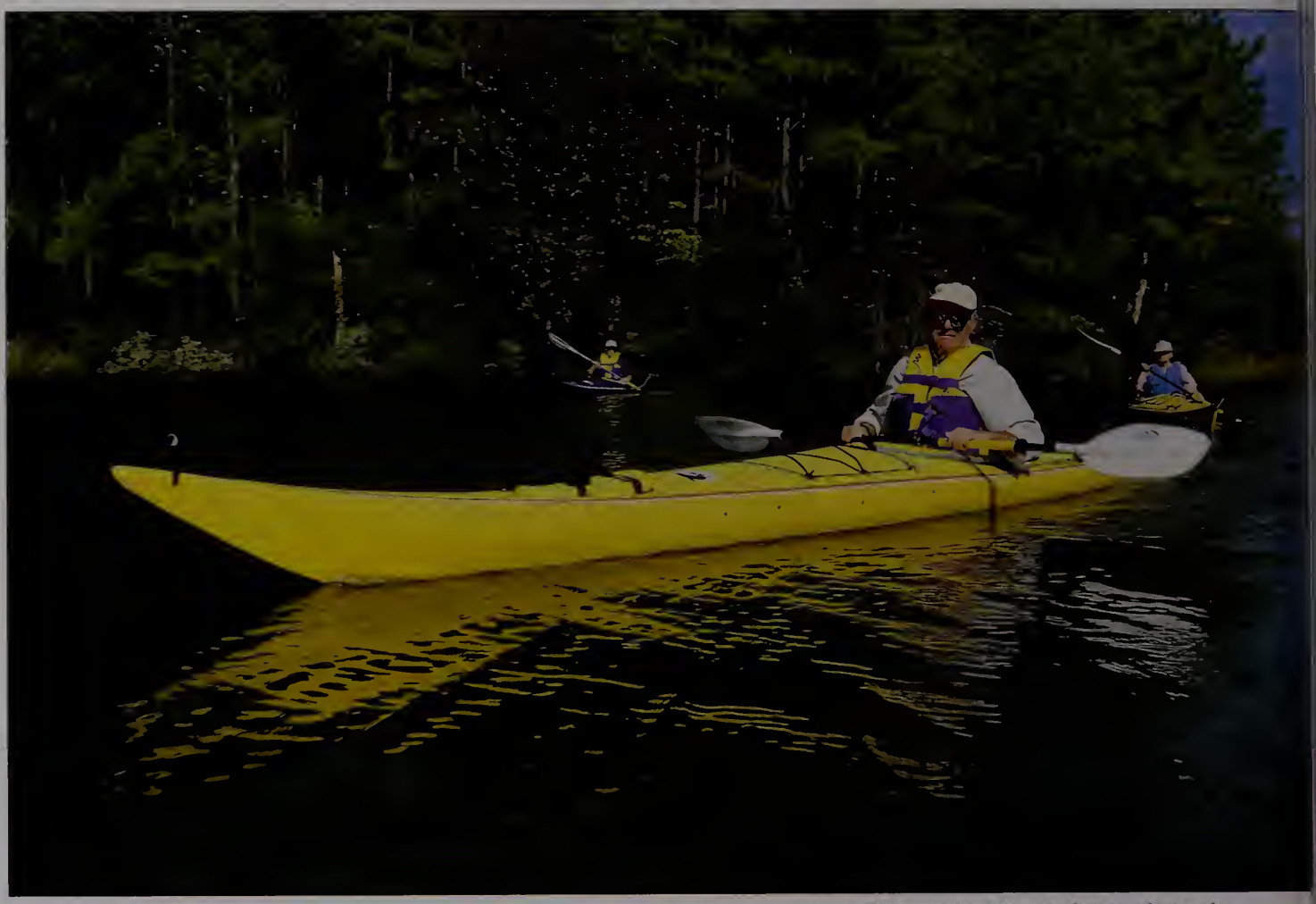
Gear is additionally protected by flotation/storage bags that slip into the stern and aft compartments of the kayak. As the name implies, these are dual-purpose bags that keep dry things dry and provide added safety to these already safe craft.

Other features that distinguish sea kayaks from their white water brothers are external bungee cords that keep various items handy—water bottles, snacks, fishing gear, cameras, bilge pump and the like. Touring kayakers learn to love the versatility of resealable plastic bags to protect their strap-on gear.

In addition to the criss-cross of bungee cords, touring kayaks will frequently have one or two hatches that allow every inch of the interior to be easily used for gear storage.

Boat, paddle, PFD (personal flotation device), appropriate acces-

Sea kayaks are wider and more stable than their whitewater brethren, something a kayaker learns to appreciate if the wind picks up. On this summer day, the going was smooth (left) and the kayaks were left as the voyagers went for a look around the Mockhorn Island Wildlife Management Area.



It's important to note that comfort and fun of this style of watercraft are not limited to the high seas. Many Virginians are discovering pleasant boating on rivers, such as these kayakers in Northumberland County. It's a great way to get to your favorite bird watching spot ***(above right)****.*

sories and the proper level of sun block and you're ready for the next step in sea kayaking. Taking on the short, but necessary, learning curve.

Ironically, sea kayaking is a long-established activity on the Pacific Coast, but wrestling with tricky tides around the San Juans, challenging the big surf of California, or enduring the Canadian cold take much away from its appeal. On the other hand, East Coast boaters of all ages are now discovering that Virginia's barrier islands, with its shallow water, moderate weather, and abundance of wildlife, is a perfect place for sea kayaking. Accordingly, there are many kayak outfitters appearing on the scene to provide instruction, rentals and sales.

Beginner's courses through any of the outfitters are usually short and hands-on. A typical course would include instruction on boating safety, kayaking equipment, launching and landing, strokes, wet exits (even though sea kayaks are inherently stable), and boat reentry following a dunk. These courses are frequently a mini-expedition and can lead to a lifetime of enjoyment.

Who can be a sea kayaker? Buzz Kraft, an American Canoe Association certified instructor and owner of Richmond's Adventure Challenge which offers instruction and group trips in Virginia's barrier islands, suggests that anyone over 100 pounds could handle a single kayak, and those under that minimum weight could buddy-up in a double. Kraft says he has active sea kayakers in their 70s, who enjoy the relaxing benefits accrue to the sport.

"Passive exercise" is how Kraft characterizes sea kayaking. "It's good, gentle exercise with no sore muscles the day after," he says.

Sea kayaking offers unexpected delights that are simply unavailable otherwise. Once on a night-paddle on the Sea of Cortez, every quiet paddle stroke brought dazzling flashes of yellow, blue, and green sparking from microscopic, bioluminescent organisms. Those little critters work just as hard when power boats speed noisily by, but only the sea kayaker really gets close enough to appreciate them. ☐

Jim Kastetter is a freelance writer and graphic designer who lived along the Rappahannock River for six years and now directs his own communications and marketing studio in Hendersonville, North Carolina.

Skills necessary for basic paddling:

- Strokes (forward touring, sweep, and power)
- Turns
- Boat reentry with and without a paddle float
- Wet exits
- Understanding of boating safety
- Understanding of equipment and its use

Equipment for basic paddling:

- Kayak in good condition
- PFD (Personal Flotation Device, "lifejacket")
- Paddle with paddle float
- Bilge pump
- Protection from the elements (hat, sun screen, sun glasses, etc.)

Pointers for basic paddling:

- Paddle with other people
- Know the area that you plan to paddle (research using maps, charts, or people familiar with the area).
- Have permission to access the area or use public landings/ property.
- Spend a few minutes to plan your trip and leave a copy of your plan with someone.
- Know your personal abilities and limitations; a beginner course in sea/coastal kayaking may help with this evaluation.
- Carry the appropriate safety equipment and know how to use it.

Information provided by Adventure Challenge

If you are a web surfer, here are some sea kayaking outfitters with web sites that may interest you:

- Maine Sport Outfitters, Rockport ME
- South Pacific Kayaks and Outfitters Maui, Maui, HI
- Outdoor Program Center, Calgary, AB (Vancouver Island, Baja)
- Get Wet Sports, Marco Island, FL
- Mangrove Bay Sea Kayak, Miami, FL
- Boojum Expeditions, Bozeman, MT (Mongolia)
- Agua Azul Kayak Shop, Clearwater, FL
- Internet Sea Kayaking Resources

The Virginia Department of Game and Inland Fisheries oversees 29 Wildlife Management Areas. All citizens are invited to hunt, fish, trap, camp or watch wildlife in designated sections of these lands. *A Guide to Virginia's Wildlife Management Areas* is available from VIB, P.O. Box 27563, Richmond, VA 23261. Please enclose $5.00 for shipping and handling.

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©Dwight Dyke

CARP

Can Make a Good Catch

by Gerald Almy

My attitude towards carp has not always been good. I recall hurling insults at companions if they were unlucky enough to hook one while we were bass fishing. And if I was so unlucky as to hook one, I'd chortle self-consciously and act as if I hated to have my rod throbbing, my line arching out tight, my drag singing a lively tune.

But my view has changed and my opinion of carp has mellowed. And it's not just me. More and more anglers in recent years are overcoming their prejudices about carp and realizing that this is, in fact, a hard-fighting game-fish and that it takes special skill to catch the wary carp.

Duane Raver

Carp are abundant in many rivers and lakes throughout Virginia, and can grow to tremendous sizes. Although it's most often caught on bait and that is the most effective way, there are alternative ways to catch carp. You can do so with lures, and even flies.

The respect that carp have all over the world as an angling quarry is starting to take hold in the minds and opinions of American anglers. So what if carp will eat dough balls and corn kernels? So will that highly respected game fish, the trout. So will salmon and steelhead.

One of the earliest experiences I had that started this personal transformation process in my opinion towards carp took place on a small warm water creek. I had fished a big, popular lake the day before for bass and had caught very little. After spending the night in my pickup camper, I awoke the next morning prepared to head to another popular body of water. As I drove, I noticed a bridge and pulled over to have a look at the stream it crossed. Peeking over the edge, I saw fish everywhere in the clear, low water. Suckers hugged the bottom, a school of sunfish milled about. Several largemouths hung motionless in the current.

But the carp were most impressive. Their big, gray-bronze forms were present in singles, pairs and small schools throughout the pool. They dwarfed the pound-sized bass and surprisingly, I found myself wanting to latch onto one of those fish, rather than the more popular "sportfish" surrounding them.

Scurrying back to the pickup, I pulled out a light spinning outfit with an eighth-ounce jig tied to the line, then approached the creek cau-

tiously and arched the jig out so it landed a short distance in front of the nearest carp. I hopped it twice. The fish swirled, zeroed in on the twitching object and sucked it in. I set the hook sharply and a violent thrashing fight ensued in the shallow water. After a lengthy battle, I twisted the jig free of the fish's mouth, then started easing towards the next one.

Only then did the novelty of the situation occur to me. Carp are demeaned as bottom-hugging wastrels, yet here was a fish cruising in water as clear as a trout stream, searching for crustaceans and nymphs. I had caught the fish not on bait or heavy tackle, but on featherlight gear and an artificial lure. To be honest, I couldn't see much difference between sight-fishing for these tailing carp and casting for bonefish on a tropical flat or stalking brown trout in a classic limestone stream such as Mossy. It was pure fishing, real fishing.

As I mulled over the situation I continued to sight-cast to the other carp. Though the fish were more difficult and a bit skittish now, I was able to vary my retrieves and tease several more into striking, landing two and losing the others after lively fights. Species notwithstanding, it was some of the most exciting angling I had enjoyed in quite a while involving clear water, sighted fish, precision casting, light tackle and a stubborn, hard-fighting quarry.

To understand why carp still have such a bad reputation—even though it's improving every year—it's necessary to look at their past and sort out some of the facts from the fiction surrounding them. The common carp, *Cyprinus carpio*, is actually a minnow. That doesn't help its reputation much to start in the United States. In Asia and Europe, however, the carp has a long, eminent history as an esteemed food and sport fish. In China, carp have been raised in ponds as a food source since 1000 B.C. In Japan, the carp is a symbol of courage and strength. At birth parents unfurl the "carp flag" in hopes the offspring will inherit the strength of the carp.

When they moved to America, many immigrants from Europe were disappointed to find that there were no carp in this country. Responding to the desires of these immigrants, the U.S. Fish Commission decided to import carp for Americans to raise in ponds and supplement the nation's fish production. Over a century ago, carp were imported to this country from Germany, arriving at Ellis Island, New York. From there they were taken to ponds near Washington and Baltimore, then shipped by railroad and mule team to fish farmers from Texas to California to Wisconsin.

Carp proved so easy to raise that the market for them became flat. At rock bottom, carp sold for less than 2 cents per pound. Undercutting the market further, sport anglers began catching the fish that had escaped and were reproducing in public waters.

They are here to stay, so let's take advantage of them. Carp are omnivorous feeders. They eat algae and aquatic plants, but also consume snails, mussels, worms, mulberries, insect larvae, nymphs, crustaceans, terrestrial insects and occasionally baitfish. You can't imitate algae and aquatic plants with lures and flies, but you can imitate many of the latter items and catch carp. We'll discuss a few of those opportunities, but first a look at baitfishing is in order. This is, without question, the most consistent way to catch carp.

You can go out blind and catch carp by fishing around points, drop offs, stumps, logs, brush piles, ledges, coves, stream inlets and below dams. You can also increase the productivity of these areas by pre-baiting them 6-24 hours ahead of time with field corn or oats soaked in water for several days, old potatoes, range cubes, canned corn, or a cloth bag filled with cornmeal. Also look for the mud-streaks carp leave as they root on the bottom. Watch which way the streak goes and cast ahead of it.

©Soc Clay

American anglers don't have the reverence for carp that some others do (See "Chuck It and Chance It," page 14), but there is nevertheless a growing interest in carp fishing.

Hook sizes can range from 2 to 8, depending on the size carp you're after. You can also use treble hooks in size 4-8. Use 4-10 pound line, depending on the amount of snags and size fish present. The lighter the line, the more action you're likely to have with these wary feeders. A long rod of 7-8 feet helps get distance in casting, but you can also use a 6 or 6½ footer if that's what you have.

Bait can be a dough ball made of moistened and kneaded Shredded Wheat or Wheaties—either plain or with some peanut butter or vanilla extract mixed in. Commercial dough baits are also available, or you can simply use several kernels of corn or partially boiled slices of potato. Another option is a piece of bread crust. You can kneed this around the hook to form a dense,

compact ball for fishing on the bottom, or simply impale a piece of crust on and use it as a surface bait, chumming with additional pieces of bread.

Even if you plan to fish on the bottom—the most traditional approach with bait—use as little weight as possible. Add a tiny split shot or two or a small rubber-core sinker only if you can't cast the offering without it.

©Dwight Dyke

Carp have very sensitive mouths and will detect a heavy lead and drop the bait. Bury the hook point in the bait, too, so the finicky fish won't feel the point when they take the offering.

Cast out and wait with the rod in your hand or resting over a forked stick with the bail open. Sometimes they'll nibble delicately and you need a sixth sense to know when to set the hook. Other times they'll nearly rip the rod out of your hand as they slam the offering. Usually there will be a slight pecking or nibbling, then the line will slowly start to move off. That's when you should tighten up and drive the hook home.

Over the years I've caught carp on a wide variety of artificial lures including crankbaits, grubs, spoons, spinners, plastic worms and jigs. Jigs and grubs are usually the most consistently effective offerings. Subtle colors such as brown, black, green and gray seem to imitate nymphs and larvae best and score most consistently, though I've occasionally taken the fish on pink, yellow and white ones too. One-sixteenth to one-eighth ounce is usually the best size.

Blind casting these lures and crawling them back slowly near the bottom will occasionally produce carp (along with a variety of other game fish.) More often, I try to spot the carp cruising and sight-cast to them. This is exciting sport that demands pinpoint accuracy in casting and finesse in manipulating your lure. The similarities to bonefishing are uncanny. Try to make the jig or grub land gently by keeping your cast low to the water and fingering the line as the lure reaches its target. Throw just far enough ahead of the carp so you don't spook it—usually a few feet ahead, depending on the depth of the water. Let the lure settle, then hop it gently as the fish nears, trying to move it forward as little as possible. It should look like a nymph or larvae getting ready to hatch. Strike quickly when the carp takes—they detect and exhale frauds quickly.

Perhaps the most unique and intriguing way of all to catch carp is on a fly rod. I've caught a number of carp using Woolly Worms and Woolly Buggers on the Shenandoah and Rappahannock rivers. When you're expecting a 10 or 11 inch smallmouth, a 5 or 10 pound carp can be an exciting bonus to the angling day. Those patterns are particularly good choices. I've also scored on size 4 to 8 nymphs imitating stoneflies and hellgrammites.

Carp are not big minnow feeders, but occasionally they'll wallop a light-colored streamer being striped in for bass, trout or even stripers. This occurred on Smith Mountain Lake one December day when I was trying to lure a pinstriped bass with a white bucktail and marabou streamer. Instead of a striper, though, a huge carp engulfed the hastily-stripped fly. The fish fought strong and hard against the thin rod and even broke water once before I worked him in and twisted out the bedraggled fly.

So instead of bad-mouthing this abundant, heavyweight fish this season, why not take a different attitude. Respect the carp as a worthy game fish that's been admired for centuries throughout the world, try to catch him on bait, lures or flies with light tackle. See if you don't think this quarry deserves just as much respect as bass, stripers, crappies and trout. I know it does for me.

After the Catch

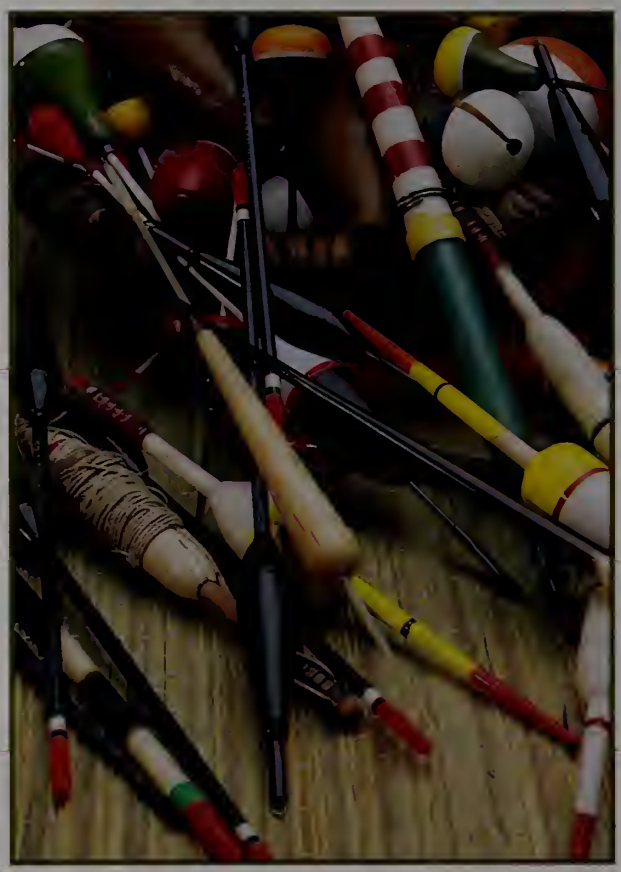
Carp taste surprisingly good on the dinner table. Keep them on a stringer, in a livewell or on ice in a cooler until you are able to clean them. Fillet the fish, remove the skin and then cut out the dark red flesh along the side and the "mud Vein" beneath it.

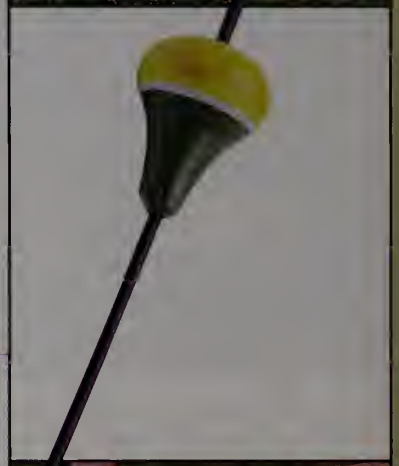
Like pike, carp have an abundance of Y-bones that can be a problem in eating. To remedy this, score the fillets with a sharp knife, cutting two-thirds of the way through the flesh every one-eighth to one-quarter inch. These cross-cuts chop the Y-bones into small pieces and allow the heat to penetrate during baking This makes the bones become soft and virtually disappear with slow, long cooking.

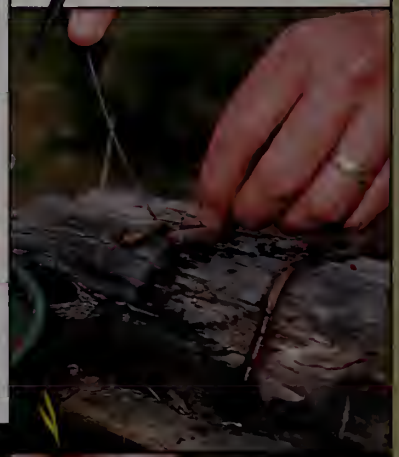
Carp can be broiled, deep-fried, baked or made into chowder. They're also good smoked or pickled. Wine, butter, lemon, garlic, paprika, parsley, mushrooms and onions are good accompaniments during cooking. ☐

Gerald Almy has been a full-time outdoor writer for more than 19 years. He is currently a hunting and fishing editor on the staff of Sports Afield.

Chuck It & Chance It







An English wag once said the U.S. and England were two countries separated by a common language. Perhaps he could have said something similar about our separate bank fishing traditions.

Jack Randolph
Photos by Dwight Dyke

The British say that Americans are light years ahead of them on the use of artificial lures, while they are as far ahead of us when it comes to the use of bait fished from the banks. Compared to their method of fishing they say that we Americans simply bait our hooks and toss out our lines. We just chuck it and chance it.

Actually, anyone who has wet a line from one American coast to the other and in Britain as well, knows better than to seize upon these generalities. Anglers on both sides of the Atlantic fish in many different ways. The methods are dictated mainly by the species of fish we are pursuing.

The British freshwater angler, when he isn't fishing for salmon, grayling or trout, fishes for "coarse" fish. It is probably accurate to say that most British anglers pursue coarse fish, a large category of species including such fish as northern pike, carp, chub, tench, bream, dace, rudd, zander, gudgeon, ruffe, bleak, perch, barbel and many others.

Most Americans recognize the northern pike which is the same species as ours. The zander comes close to our walleye and the perch is almost a dead ringer for our yellow perch. The barbel is probably closer to our sucker than anything else. We have no counterpart for the tench, a respected hard fighting fish. The others closely resemble baitfish we have here in Virginia. The British bream comes closer to a carp or a freshwater drum. It is nothing like our sunfish. And there is no counterpart for our freshwater bass in the chilly waters of Great Britain.

In Britain the carp could almost be a class of its own. There are many dedicated fishermen who generally fish tiny ponds for carp. There are several kinds of carp recognized by the British carp fishermen. These include common, mirror, leather, wild and crucian carp.

Rarely does a British angler eat his catch. Carp fishermen fish for the thrill of outwitting a sharp adversary. These fish are "well educated," in that they know the ways of the angler. They carefully net and land their catch, placing it on a special pad so it won't hurt itself while it is unhooked. The trophy of the event is a photograph of the angler lovingly holding the fish to his bossom before it is released alive. British fishing culture has an expectation that these fish will all be live released.

As the tournament fishermen is to the United States, the match fisherman is to Britain and other European countries. Unlike our bass fishermen, the match angler fishes exclusively from the bank.

In many ways a British match fishing event resembles a surf fishing contest. The anglers in both draw for a place to fish. The matchman draws a number from a hat that will determine his "pitch" which is the spot from which he must fish. Once the matchman draws his pitch it is up to him to attract fish to it and to catch them. This is what separates the British from the American bank fisherman. Also various European countries have national match fishing teams that compete as a matter of national pride.

Americans will recognize tricks used by British bank fishermen as a form of chumming. The use of chum and particularly scents is gaining favor in American waters for many species of fish, but the British angler has been chumming and using scents for years and in doing so has developed some specialized techniques. Although many of the British techniques are aimed at prey species of fish that we would consid-

British style bank fishing includes elegant bobbers ***(middle left)****, freshwater chum bait* ***(far left)*** *and an array of other speciality products which can be purchased on this side of the Atlantic.*

er to be bait, these techniques can be used to attract such American species as catfish, carp and possibly other species that will respond to scents such as walleye, perch, sunfish (particularly shellcrackers), suckers and even bass.

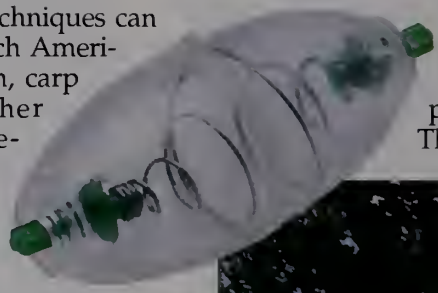
Something that makes British "chumming" unique is theirs is accomplished almost strictly from shore while here in Virginia we generally chum from a boat. Also, the British chum generously in freshwater while we confine nearly all of our chumming to saltwater.

When the British matchman arrives at his pitch he frequently scopes things out by casting a line with nothing but a sinker attached to discover the depth of the water, the strength of the current, the presence of structure and, possibly, the nature of the bottom. Sometimes a hook is attached to this exploratory rig to bring in bottom debris for examination.

Groundbaits can be made of various seeds and grains laced with whatever baits are going to be placed on the hook and, perhaps, a little scent. I use Krafty Katcher groundbaits, slightly wetting them so that they can be molded into a ball by hand.

Now, the British use a technique called "pre-baiting" which sometimes goes on for weeks, with the bait replenished several times each week. This technique is used mainly for carp, and potatoes are common baits. Pre-baiting is known here, but generally isn't as elaborate. I've been known to dump a few cans of whole kernel corn the day before I plan to go carp fishing.

Generally, after a match fisherman has scoped out his pitch he'll mold a few balls of damp groundbait into baseball size balls and he'll pitch them out into the water where he intends to cast his baited hook. Included in the ball of groundbait may be bits and pieces of worm, fish or whatever you plan to put on the hook, or as the British call it, the hookbait.



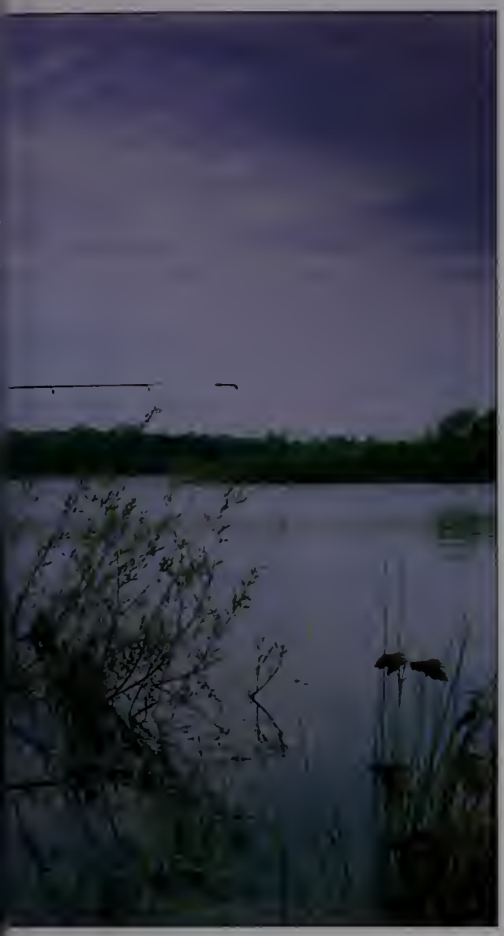
The next step in this chumming process is to use a plastic feeder. These feeders come in various sizes ranging from 3/8 to 5/8 ounce. They slide on the line above the hook. A split shot or snap swivel placed 18 to 24 inches above the hook keeps the feeder where you want it. Before casting out your baited hook, fill the feeder with groundbait and bits of hookbait. There is a lead weight made to be snapped on the feeder if you need the feeder to act as a sinker, too. The feeders add to the chum or groundbait each time you cast, providing visual and scent attractors to the hookbait. There is an entirely new and effective use here for the many fish scents on the market today, but, particularly for carp, the British scents probably have an edge.

After tossing crankbaits into the water, and offering a feeder-full of groundbait attached to your line, there is yet a third step. As your baited line soaks and you wait for a strike, you can enhance your chum, by using a slingshot, a "catapult" in Britain, to scatter bits of groundbait and hookbait near your baited hook. Experienced anglers pay close attention to the currents, selecting the best place to deliver groundbait so it attracts fish to the baited hook.

Now, just because the British bank fisherman doesn't use a high-powered boat, he doesn't get away cheap. His basic equipment includes electronic bite indicators that buzz or chirp when a fish nibbles, ever so slightly. He has special bed-chairs that he can snooze in if he fishes all night, as carp fishermen often do. The complete British angler has a huge umbrella, steel rod holders, fishing platforms, keeper bags, huge nets and a tackle box crammed with a huge assortment of bobbers, sinkers and hooks. Heavy sinkers are called ledgers or bombs.

British fishermen use a wide vari-

ety of bobbers of various shapes and buoyancy. Fishing in Britain with a bobber is a precise art that would match the skills of a fly fisherman. Because these anglers often pursue



tiny fish using hooks so small you can barely see them, their bobbers must be able to detect the slightest bite. Instead of using one or two split shot as we do, they have made "shotting the line" an art so that their baited hooks achieve the proper float under a delicately balanced bobber.

While fishing from a boat is preferred by many anglers and undeniably is a great deal of fun, there are also great rewards in fishing from the bank. The British method of using groundbaits to attract more fish to your baited hook extends the bank fisherman's range, but there are other fish-catching tricks at the bank fisherman's disposal, many of these are of American origin.

Of course, bank fishing is not the exclusive province of the freshwater fishermen. There are scores of opportunities to fish from the bank for saltwater fishermen, too. There are, of course, the piers and there are many locations along Rudee Inlet, the Lynnhaven River, the Norfolk waterfront and the many tidal rivers where saltwater anglers can catch fish. Substitute ground menhaden for the British groundbaits and the same methods can be productive. Where strong currents are a problem use a lead chum pot and place it just upside of your baited hook. Chum pots with menhaden chum are also used in the freshwater reaches of the tidal rivers by anglers fishing for big blue catfish.

There are many opportunities for bank fishing. In addition to the many public ponds, there are special facilities for handicapped anglers.

British tools such as bite detectors and rod holders are great tools for bank fishermen everywhere. Their big landing nets and keep bags for fish are also valuable. There are, however, some uniquely American innovations that can be beneficial. If you can't afford an electronic bite detector there are bells mounted on a wire that can be screwed into a pier. These bells have been signalling bites for generations. I've seen a portable fish locator rigged to a pole to search for fish from shore or from piers. There are floating lights and underwater halogen lights that can be worked from a 12-volt battery on a pier to attract fish at night.

Many American bank fishermen carry a few artificial lures to check out the area for an errant bass or pickerel. A red and white Daredevle spoon jigged around the pier pilings has more than paid its way in pounds of pickerel and bass. Crappie jigs fished under a bobber which is popped on the surface often claims plenty of crappie.

The British have other neat bank fishing items. One is a clip that goes on the rod handle. While waiting for a bite with the bail open on one's spinning reel, this clip can hold the line, and keep it from paying out in the current while easily allowing a fish to snatch it free. Another is a series of rigs for allowing sinkers to slide on the line. They are a different twist to our fish-finder rigs.

Many of us prefer bank fishing because it is often easier to get to the water and to start fishing without all of the fuss of towing, launching and trailering a boat. For some of us using the boat calls for too much work if we have to go it alone. A bank fishing trip is often easier to squeeze into a few hours we have to fish. Or, perhaps a day on the bank of a pond or a river with family or friends puts us a little closer to nature or to each other.

The British system is full of possibilities for fishing over here, in the colonies. Using some of their tackle and ideas we may not have to "chuck it and chance it" anymore. We may even catch fish. ☐

Jack Randolph is a freelance writer who lives in Colonial Heights. He is an avid hunter and fisherman.

There are increased possibilities with British techniques bank fishing, and it's an easy way to make fishing part of a day's outdoor recreation. For more information about bank fishing opportunities, visit your local license agent and get a copy of our Freshwater Fishing Guide, or write us at the Department of Game and Inland Fisheries, 4010 West Broad Street, Box 11104, Richmond, VA 23230-1104 or send an Email to rjefferson@dgif.state.va.us.

What To Do When The Warden Stops You

Sergeant Ron Henry checks the extinguisher of a personal watercraft operator on Smith Mountain Lake. Photo ©Dwight Dyke.

by Carol Mawyer

It became easy to ignore the stiffness he felt in his lower back from a long morning out on the York River. The croaker had started biting. And they were biting fast!

At this rate the fisherman and his buddy would be cleaning fish long after the sun set. Then he saw a boat approach and slow. It looked like the secret was out—they'd have to share the spot with other boaters. But it wasn't just another boater. It was the game warden.

He began to feel a little nervous. Darn, what was the limit on croaker? Did he replace those PFDs after he cleaned out the hole last time? What about the fire extinguisher? Was the registration on the boat?

For most boaters, this "instant panic" is unfounded. "Usually, the operator has done nothing wrong," said Officer Lee Jones. "We're just conducting a routine check. But people still get nervous and uptight."

Boat checks are commonplace on Virginia's waterways during the warm weather months. Routine checks help ensure the safety of boat operators, their passengers and other boaters. Officer Jones of Prince George County and many others across the state of Virginia spend entire shifts on the water.

In order to stop a boat, the officers must have probable cause. Probable cause can include an observed safety violation, reckless or improper operation of a boat, registration numbers which are not plainly visible, or participation in a sporting activity such as waterfowl hunting or fishing.

Once probable cause is determined, the officer will approach the boat. For the cooperative boat operator, a boat check can be as brief as five minutes, said Steve Pike, a Bedford County sergeant working his tenth season on Smith Mountain Lake; sometimes it can take longer.

Officer Jones and Sergeant Pike offer this advice to boaters who are hailed by a game warden.

Stop.

If underway and the officer has engaged his blue lights, bring your boat to a complete stop. (If a boat is anchored, an officer will often not use his lights.) Make sure the throttle is in neutral and cut the boat off. If you're fishing, make sure your rods are out of the way to avoid having them damaged or getting the lines entangled in the prop.

Prepare.

Have your registration and, if appropriate, fishing license out. Know where your safety equipment is and be prepared to get it upon request.

Listen.

Allow the officer to identify himself and explain why you're being stopped.

Cooperate.

"People can make it easier on themselves by realizing that we are conducting these checks for their safety and the safety of others," said Officer Jones. Cooperate and provide the officer with whatever information, paperwork or equipment he asks to see.

During a typical boat check the officer will check the boat's registration and safety equipment. (See related article "On The Water," *Virginia Wildlife*, April 1997.) For small boats, the check can be completed from along side. With larger boats, the officer will request permission to board the vessel. If the boaters are fishing, the officer will check for fishing licenses, creel limits, size limits and adherence to fishing regulations.

"Hopefully, each time we make a stop there's an information exchange and the boater learns something," said Officer Jones. Many times he will distribute copies of the Motorboat Owner Guides to boaters he checks. This pamphlet outlines what operators need to know in order to operate a boat safely and obey the law in the State of Virginia.

"People are becoming more safety conscious," said Sergeant Pike who is also Chief Boating Instructor for the Department's Law Enforcement Division. "During a recent work cycle in the Smith Mountain Lake area, officers recently issued more warnings than summons. We've had an overwhelming response to the boating safety courses in this area with attendance figures of anywhere from 40-70 people per class," he added.

Not only are boaters becoming more safety conscious, they're becoming more familiar with Virginia law. Just like the York River fisherman, who after his encounter with the game warden, realized there was, in fact, no limit on croaker. □

Carol Mawyer is a freelance writer residing in Virginia.

Rappahannock River Float and Fishing Trips

On the Rappahannock River, only and hour from Washington, D.C., or Richmond, the daily grind seems much farther away.

by Bob Gooch

The Rappahannock is a river rich in Virginia history, a river that is favored by canoeists and a river that is renowned for its smallmouth bass fishing. The pageantry of this river is borne on the eastern slope of the Blue Ridge Mountains just east of Chester Gap. From its mountain headwaters to where it mingles with the Chesapeake Bay there is 185 miles of lore that awaits the outdoor enthusiast.

At the fall line in Fredericksburg the Rappahannock changes its character. For this is where it collides with the ocean tides; it is here that the "upper reaches" of the river transform into a distinguished tidal portion, the length of which stretches 100 miles downstream to Greys Point. However, it is the upper 85 miles of faster moving water that lures the floaters and smallmouth anglers to the waters edge.

The moving water in the upper reaches of the Rappahannock owes part of its excitement to the mergence of the Jordan River, just upstream from the Route 647 bridge. But, venture forth only after the water flows past the U.S. 211 bridge, when the river becomes public domain.

Beyond the "put-in" at Kellys Ford landing the river will wisk away any momentos of the suburban lifestyles that eclipse it. Our canoeists find 25 miles of stream awaiting them that have changed

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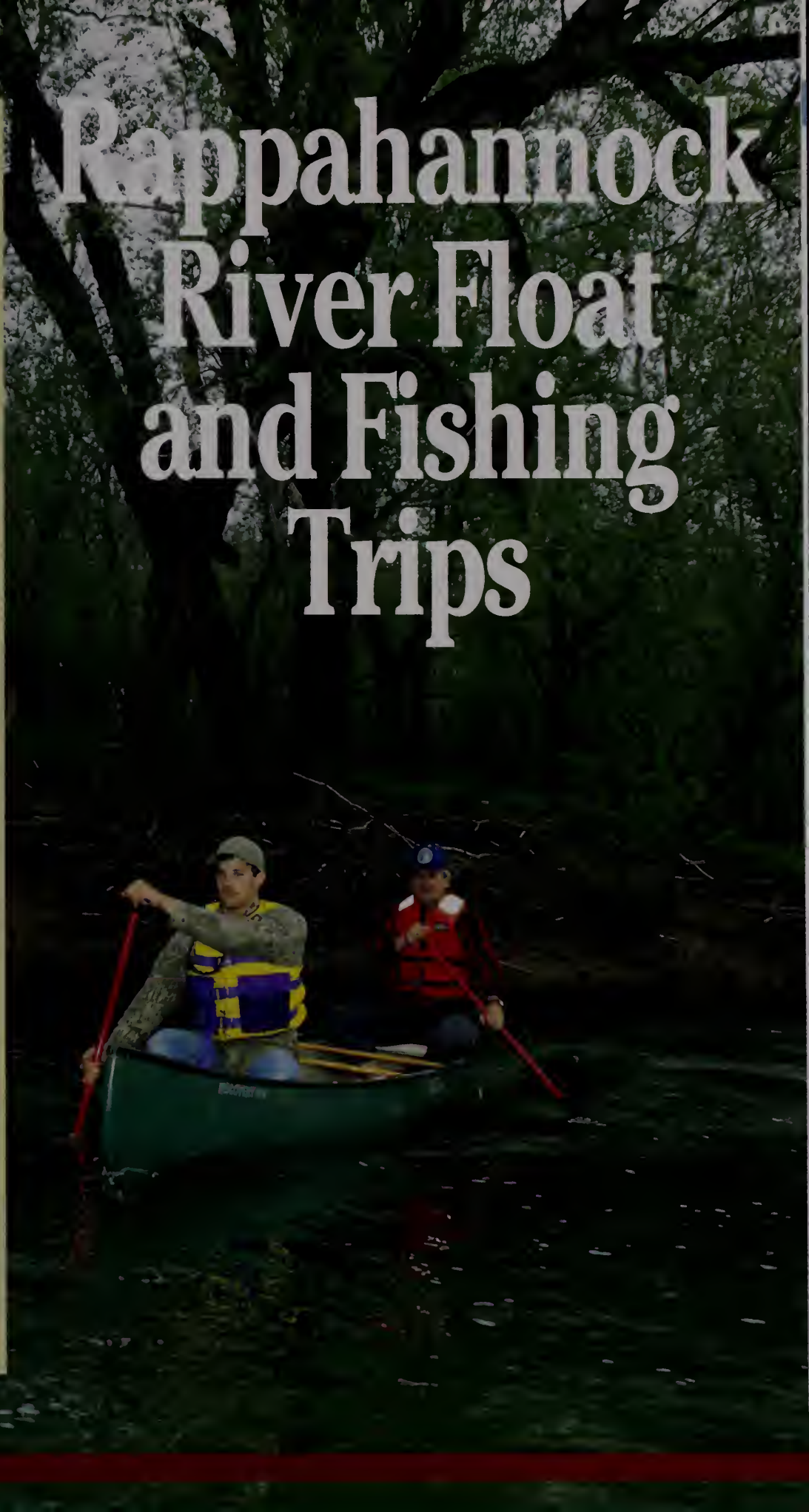


Float Trips

U.S. 211 Bridge to Old U.S. Highway 29 Bridge

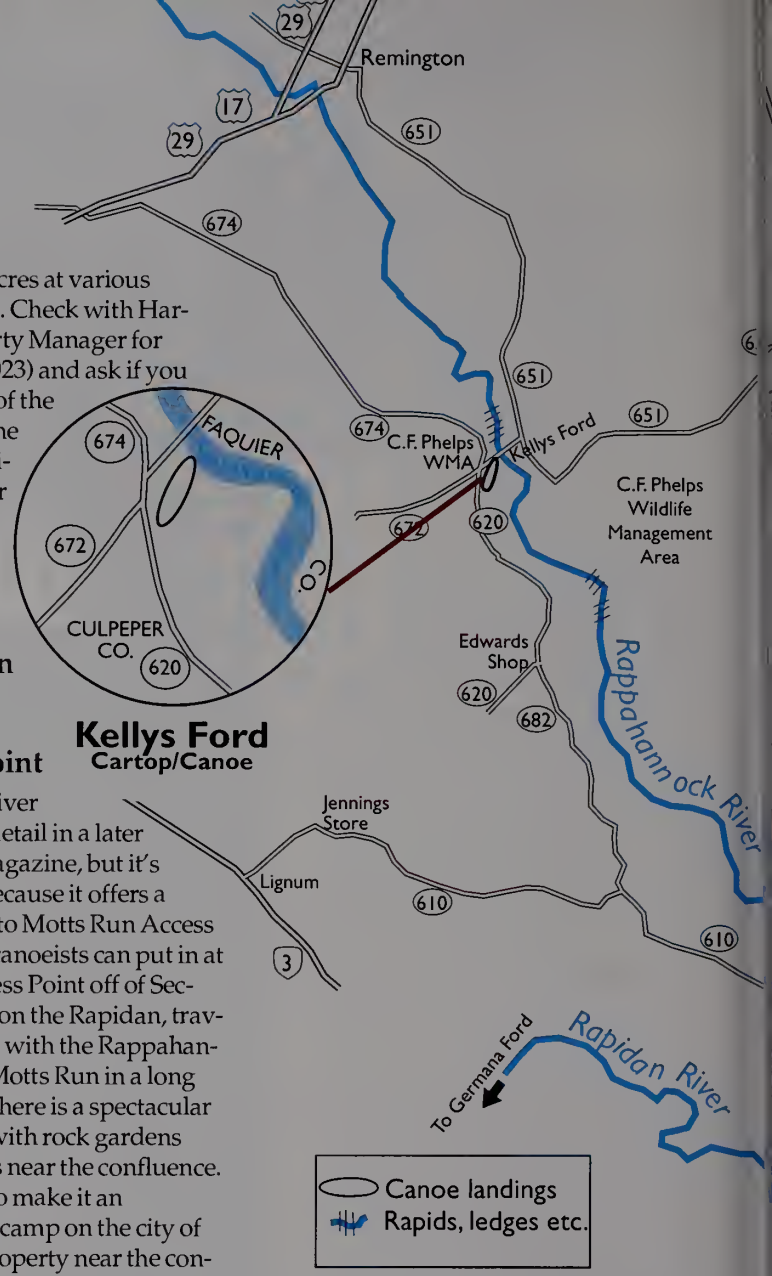
The Rappahannock River is considered a public waterway from the U. S. 211 bridge to the Chesapeake Bay, but there is no formal access above the Kellys Ford launching ramp downstream from the U.S. 29 Bridge. Several secondary roads bridge the river between the U.S. 211 and 29 bridges, but using them to access the river is subject to the approval of private landowners. Most river users, entering or exiting the river at the Old U.S. 29 bridge, park at Ande's Store on the Remington side of the river. To be on the safe side get permission from the property owner.

Old U.S. Highway 29 Bridge to Kellys Ford

This 4.5 mile stretch of river includes the famous Kellys Ford Rapids and is a favorite of canoeist. Many may run the river several times in a single day. Note the above comments on entering the river at the Old U.S. Highway 29 bridge. The rapids, depending upon how full the river, range from Class II to III. The Kellys Ford launching is on the south, or right, side of the river going downstream. There is some good bass fishing above and below the rapids. The launching ramp and parking area are on the south side of the river.

Kellys Ford Access Point to Motts Run Access Point

This is the most popular float trip, but also the longest—two full days or 25 miles. Access is off of Secondary Route 620 on the south side of the river below Kellys Ford and exit is off of Secondary Route 618 also on the south side of the river. Going downstream, both access points are on the right. Parking is available at both access points. Near the confluence of the Rapidan River which flows in from the south, or on the right side of the Rappahannock going downstream, there are some Class II rapids. Approximately six miles of the C. F. Phelps Wildlife Management Area border the north side of the river just below Kellys Ford, and the city of Fredericksburg owns 4,800 acres at various points on the river. Check with Harvey Walsh, Property Manager for the city (540-3721023) and ask if you can look at a map of the city. It will show the location of the various parcels of river land. Most are available for camping.



Kellys Ford
Cartop/Canoe

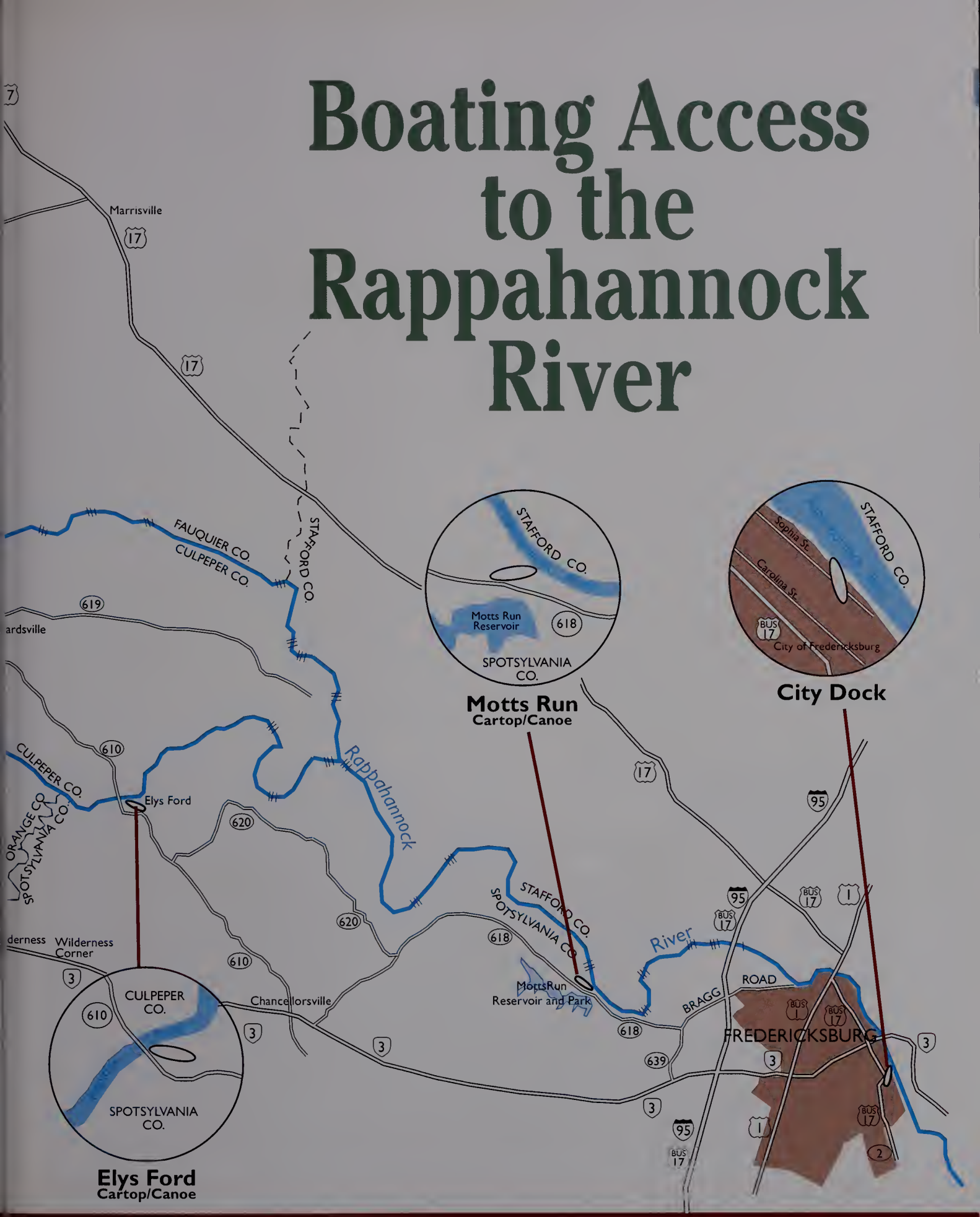
Elys Ford Access Point on the Rapidan River to Motts Run Access Point

The Rapidan River will be treated in detail in a later addition of this magazine, but it's mentioned here because it offers a much shorter trip to Motts Run Access Point. Anglers or canoeists can put in at the Elys Ford Access Point off of Secondary Route 610 on the Rapidan, travel to its confluence with the Rappahannock and float to Motts Run in a long day. The Rapidan here is a spectacular and remote river with rock gardens and Class II ledges near the confluence. Those who want to make it an overnight trip can camp on the city of Fredericksburg property near the confluence. Take out at Motts Run access point just off of Secondary Route 618. There is good fishing for smallmouth bass, sunfish, and other species in the Rapidan River.

Motts Run Access Point to Fredericksburg City Dock

The Motts Run to Fredericksburg City Dock is a distance of approximately three miles or less than a half-day float. Below the dam the current will move a canoe along rapidly. This float calls for portaging around Embrey Dam. The portage trail is located on the north side of the river and it is well marked. Canoeists are advised to stay on the north side of the river as they approach the fast water of the fall line above the U.S. Highway 1 bridge. There is some dangerous Class III or higher water on the south, or right, side. Otherwise the fast water in this short section of the river is not rated above Class I or II. The canoeist will encounter tidal water at the U.S. Highway bridge, but can exit the river at the city park on the right, or south, side of the river. To do so will require a long carry to a vehicle. On the other hand the City Dock is only a mile or so downstream on the right, or south, side of the river where a vehicle can be backed up to the dock for loading. It's tidal water, however, and will call for some flatwater paddling. □

Boating Access to the Rappahannock River



little over time. The friendly current will push them past miles of rich stands of hardwoods that have been spared because of the steep cliffs they inhabit, rock cliffs that have withstood centuries of raging flood waters, wooded islands begging to be explored, and giant midstream boulders that seem to yell "smallmouth bass." There will be rapids to run, but they are not difficult, and long quiet pools where both anglers may have to take up paddles to travel through. The bottom of the stream over which the crystal clear water flows is sandy in places, but in others it is filled with ledges and rock gardens where bass lurk.

The canoeist will also travel with history. Early battles of the Civil War were waged in its river basin, and legend has it that a young George Washington tossed a silver dollar across the river at Fredericksburg. Here and there are the remnants of a river transportation system that flourished back when America was still a fledgling nation.

When the anglers leave the Kellys Ford launching ramp they are committed to a minimum of two days on the river. On their left as they leave the launch area is approximately five miles of the C. F. Phelps Wildlife Management Area. The next public access, however, is Motts Landing, an estimated 25 miles downstream. But they are in no hurry. Instead they look forward to a leisurely trip—fishing, admiring the river and its environs, taking turns at the fishing and paddling. They'll keep none of the bass they catch, but late in the day they may string a few fat sunfish for dinner on the river.

The city of Fredericksburg owns 4,800 acres of land on the river, and they have identified a spot near the confluence with the Rapidan where they will set up camp, build a campfire, and enjoy a long evening by the river. Lulled by the soft breezes in an ancient hemlock and the timeless murmur of a free flowing river, they will drop off to sleep and awake to the unsurpassable aura of a Rappahannock River dawn. This alone is worth the trip.

In addition to smallmouth bass and redbreast sunfish, anglers floating the river may encounter native fish such as catfish, chain pickerel, fallfish, and suckers. There is also limited fishing for bluegills, crappie, and largemouth bass. They are not native to the stream, but escapees from hundreds of farm ponds that dot the Rappahannock River basin. They escape from the ponds during floods and seek water to their liking in the quieter pools of the river.

Periodically, canoeist or fishermen will pass the mouths of numerous tributaries such as the Hazel and Rapidan rivers, both good smallmouth streams in their own right.

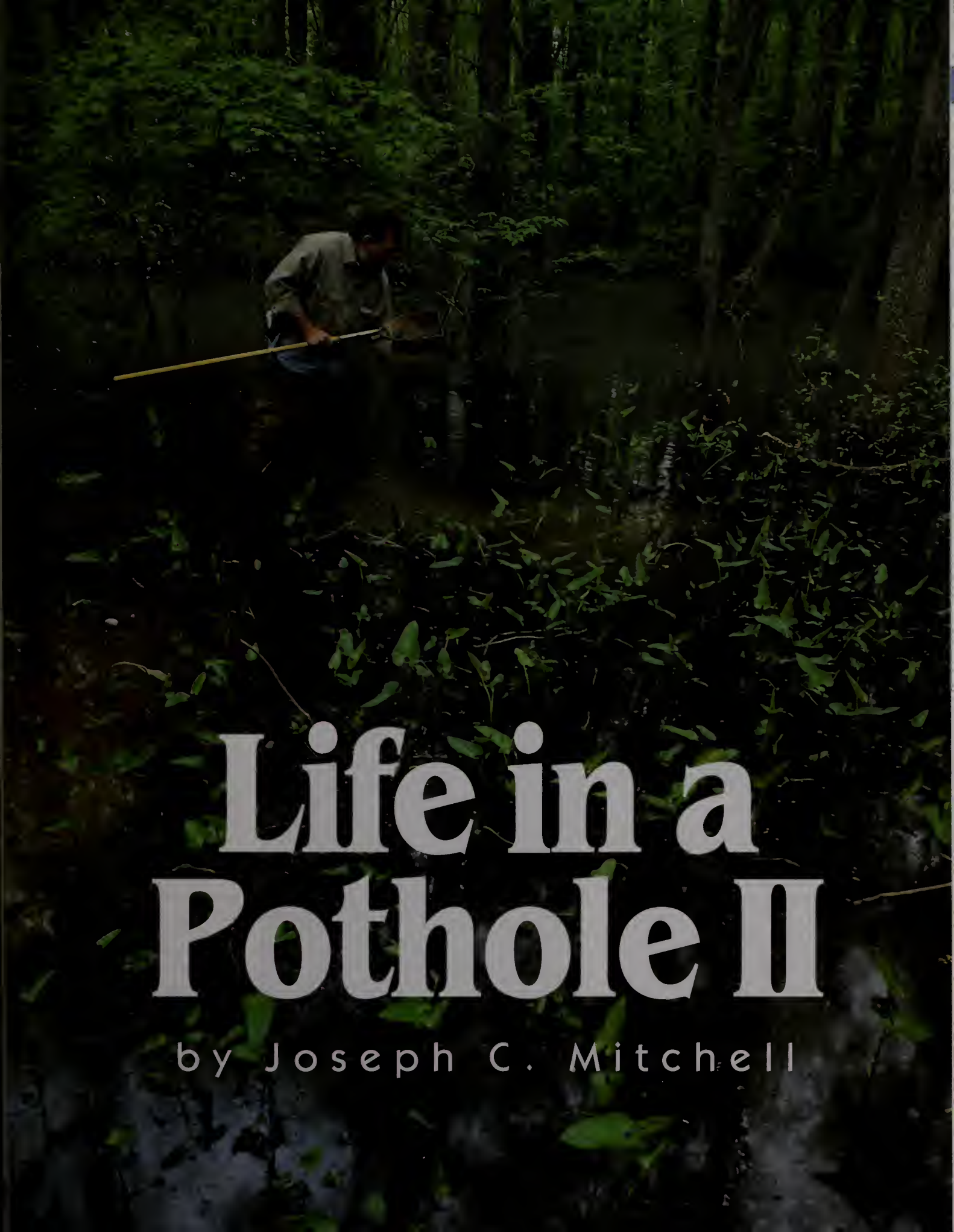
Most upriver canoeists and anglers end their trip at Motts Landing on the right near the city of Fredericksburg, but a hardy few may want to portage around Embry's Dam and tackle the fall line waters that end at the U. S. Highway 1 bridge where the fast river collides with the tidal river. The take-out point is at the City Dock Landing on the right—or south side of the river.

While the river below the dam holds the fish mentioned above, it is the run of migratory fish that draw anglers to the fall line water in March, April, and May. The hickory and white shad runs are popular, but there are also white perch and striped bass. Catch-and-release fishing is legal for all species, but check the regulations on striped bass and white shad.

Once you have floated and fished the Rappahannock, you will always want to return. It's just a matter of time before you accept its challenges again.

Bob Gooch is a freelance writer and frequent contributor to Virginia Wildlife.

Kellys Ford. Cover and right, ©Dwight Dyke



Life in a Pothole II

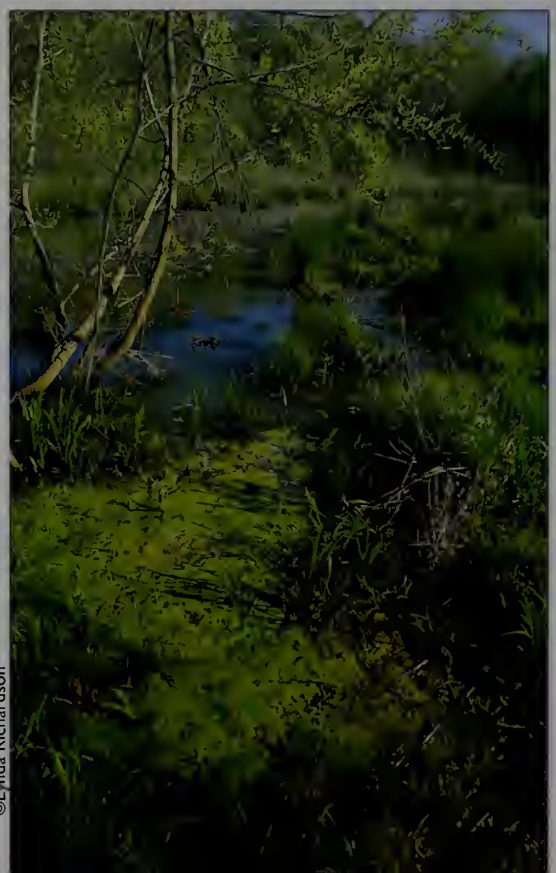
by Joseph C. Mitchell

As it is in most habitats, life in temporary bodies of water is fraught with uncertainty.

©Tim Wright

The woodland pond that was full of cold water and tiger salamanders in January was nearly dry in June. The water level had receded quickly over the past couple of months, largely because the water table had dropped for lack of sufficient rain. Many of the salamander larvae had lost their gills, developed lungs, and emerged on the last rainy night. But those left in the pond had not completed metamorphosis and were in serious danger. Bird, mammal, and snake predators found easy pickings in the small, nearly dry pool that remained.

Frogs and salamanders that use ephemeral, or vernal, pools for breeding and larval development can have a tough time. Those species whose physiologies allow them to use such aquatic habitats for mating and egg laying in January through March usually have the luxury of at least several weeks, if not months, for larval development. The time from egg laying to metamorphosis for early breeders varies from about 12 to 24 weeks. Those species that breed later, say in late April and May, have the biggest challenge. Their larval times must be comparatively short, often lasting less than 4 to 6 weeks. The incredibly dynamic environment typical of vernal pools has provided the template for the evolution of these two con-



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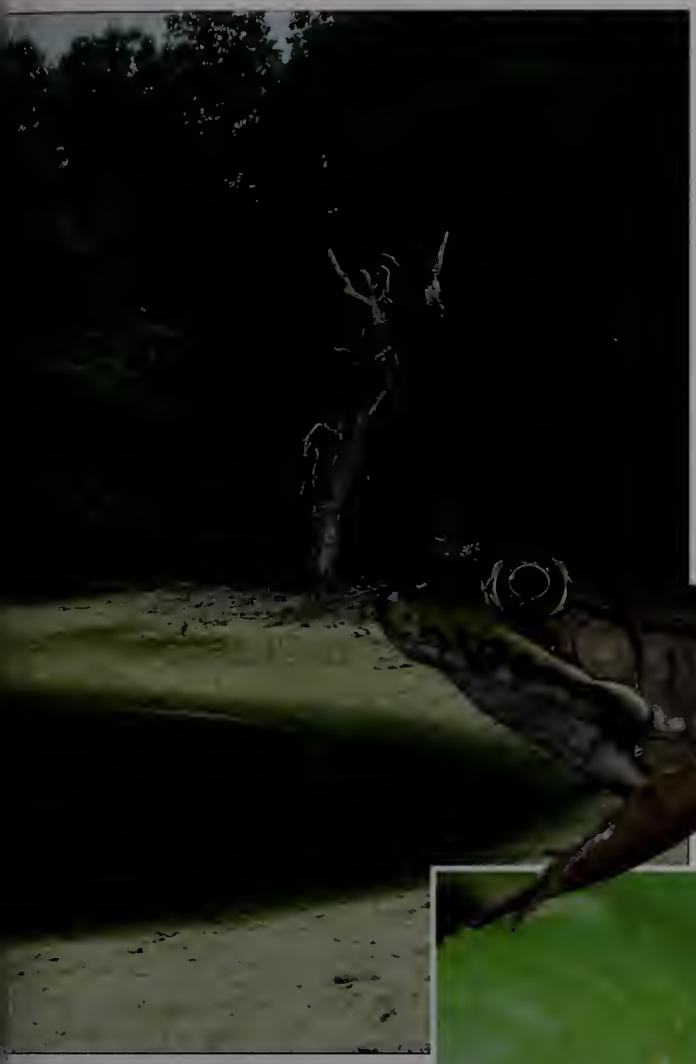


Joseph Mitchell

©David Liebman

trasting strategies—cold weather breeding with longer larval periods versus warm weather breeding with shorter larval periods.

Vernal pools in winter and early spring offer a relatively stable environment. Two factors determine how fast a pool dries up: the rate of water table subsidence and the rate of evapotranspiration. The former depends on the amount and frequency of rainfall, whereas the latter is an integrated and more complex phenomenon. Radiant energy from the sun is needed for evaporation to occur from the surface of a pool and from the surfaces of leaves. Evaporation from leaves is what helps trees pull water up through the roots, trunk, and limbs (transpiration). There is less radiant energy when the sun's angle is low than when it is high. And the lack of leaves in winter means little transpiration can occur. Thus, evapotranspiration is slow early in the year and faster in late-spring and summer. The result is that water loss is slower early and faster later. Hot, dry spells in May when the leaves are out can cause rapid water loss and create a desperate situation for the animals living in these pools.

The larvae and tadpoles of amphibians that breed early in the year, like the tiger and spotted salamanders and spring peepers described in the April issue of *Virginia Wildlife*, take advantage of the longer hydroperiods characteristic of the early part of the year. In contrast, several species living in Virginia use vernal pools during the time the rate of water loss is at its highest.

(Page 23) The author surveying for amphibian larvae in a woodland vernal pool. Photo by Tim Wright. ***(Opposite page, far left)*** *Spring peeper tadpole found in the woodland vernal pool.* ***(Top left)*** *A nearly dried vernal pond in the George Washington-Jefferson National Forest. Photo by Lynda Richardson.* ***(Opposite page, bottom left)*** *Margin of a shallow wetland with grasses and sedges that create an ideal habitat for frogs.* ***(Top inset)*** *Green frogs are probably the most common frog across the Commonwealth. Photo by Lynda Richardson.* ***(Above)*** *A recently-metamorphosed Cope's gray treefrog.* ***(Top right)*** *The immature, terrestrial stage of the red-spotted newt, called an eft.*

These warm weather species have several things in common. They include explosive breeding over a few short days, rapid growth, short larval periods, extended breeding times, and dramatic fluctuations in numbers.

There is often a lull in breeding activity between when the cold weather species are reproductively active and when the warm weather species begin this age-old ritual. Actual dates of breeding are weather-dependent, of course, but in Virginia east of the mountains, activities usually begin in mid- to late-April. Mountain populations start later, because of cooler weather.

The first of the warm weather breeders is usually the cricket frog. The northern cricket frog *(Acris crepitans)* occupies most of the state but it is replaced in the southeast by the southern cricket frog *(Acris gryllus)*. These small frogs may be active as early as warm spells in February but males do not start calling until April. The two species are often hard to identify in the zone of overlap from southeast of Richmond to Suffolk but outside this region there is only one species, making identification relatively easy. These little frogs possess a red, brown, or green stripe down the middle of the back. They often utilize the grassy edges of shallow ephemeral pools in open areas but shun pools with full canopies. Their calls, like pebbles being clicked together, can be heard day and night.

Most of the frogs related to bullfrogs, the ranids, prefer permanent water for breeding. However, the green frog *(Rana clamitans)* often lays eggs in vernal pools. These moderate-sized frogs, whose calls are likened to a plucked banjo string, are known to breed from late-April to September. They are greenish to brown with a bright green patch along the upper lips. Their eggs are laid in gelatinous masses up to a foot or so in size that lies on or just under the surface attached to vegetation. Unlike other frogs that breed in vernal pools, the tadpoles of this species can overwinter as long as the pool does not dry up. Pools are more likely to remain viable if they are deep and the rainfall is frequent.

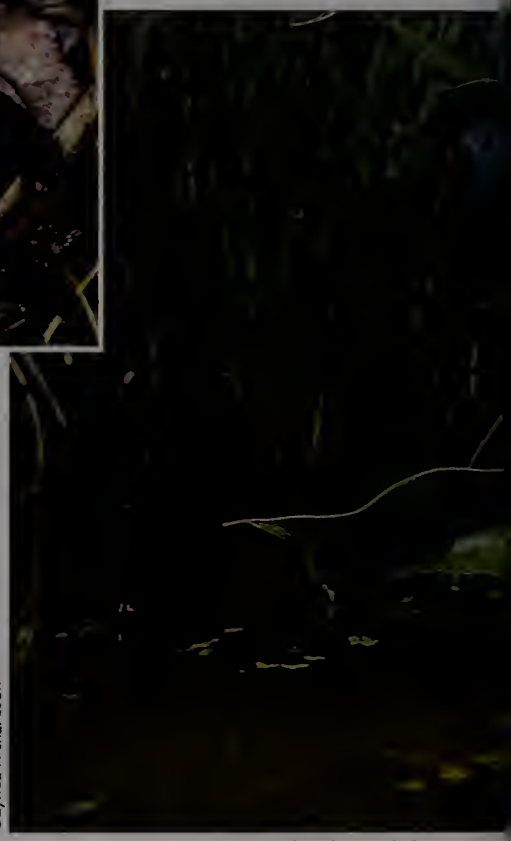
©Lynda Richardson

©Lynda Richardson

R.W. VanDevender

The long strings of black eggs seen in shallow ephemeral pools in fields, dirt roads, and your backyard in May and June belong to Fowler's toads *(Bufo fowleri)*. The water in which this frog breeds is usually only a few inches deep. Male vocalizations are high pitched trills lasting for 2-4 seconds. Their tadpoles, which can number in the thousands, grow fast and emerge as tiny toadlets in under a month. Few predators eat them since they possess toxic skin glands. That may be why they are so conspicuous in open, shallow pools.

All across the Commonwealth the frog that we often associate with summer rains is the gray treefrog. These arboreal amphibians live in trees when they are not hanging around shallow, ephemeral pools. Eggs are laid as small surface clusters. There are two species. The eastern gray treefrog *(Hyla versicolor)*, which has four sets of chromosomes and whose males produce a low frequency trill, occurs in the Virginia Piedmont and mountains north of the New River. The Cope's gray treefrog *(Hyla chrysoscelis)* has two sets of chromosomes, as in humans, and the males produce a high frequency trill. It occurs in the Coastal Plain, parts of the Piedmont where both species may be found, and southwestern Virginia south of the New River. The only way to identify these two frogs is to recognize their calls or count their chromosomes. They are identical otherwise. Both use the same kinds of habitats, including shallow pools. The larval period is short, often only 4-5 weeks.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***(Top)** Fowler's toads are summer breeders in shallow vernal pools. **(Above left)** The beautiful barking treefrog calls in late spring and summer months following heavy rains. **(Above)** Eye-level with a northern cricket frog in a vernal pond. **(Bottom left)** A northern cricket frog in the process of consuming a damselfly.*

Two other treefrogs that occur largely in southeastern Virginia also respond to warm late spring and summer rains. The pine woods treefrog *(Hyla femoralis)* is a small, brown frog with a dark smudge on

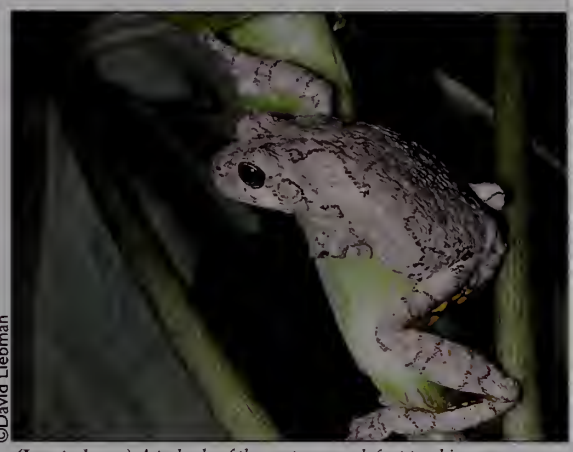
its back. The male's call sounds like Morse code. The barking treefrog *(Hyla gratiosa)* is the largest treefrog in Virginia, indeed in North America, and is usually green with dark or light spots. Its call is similar to a dog barking in the distance. Both breed in shallow vernal pools in summer during rain events associated with heavy thunderstorms.

The narrow-mouthed toad *(Gastrophryne carolinensis)* is not a toad at all but a microhylid with a tiny mouth. It spends most of its time underground, often associated with ants and termites, which it eats. Summer thundershowers bring this frog to the surface. Males call loudly; their calls sound much like a sheep's intense bleating. Once mating takes place in a shallow, ephemeral pool in the open, the adults retreat underground. The small clusters of eggs quickly hatch and the tadpoles metamorphose 3-4 weeks later. Its range includes the Coastal Plain and southern Piedmont of Virginia.

One of the most explosive breeders with the shortest larval period is the spadefoot toad *(Scaphiopus holbrookii)*. This one is also not a toad, but a member of a unique group that burrows underground with special appendages on their hind feet. Spadefoots come out in heavy summer rains and mate over a single night or two to lay their eggs in shallow water. Tadpoles take only about two weeks to develop and they often barely make it. The only breeding congregations I have encountered have been during or right after a hurricane has passed through the area.

Except for the ambystomatids (tigers, spotteds, marbled), few salamanders breed in vernal pools. Most species in the state are either terrestrial in hardwood forests or inhabit streams and seepages. The only exception is the red-spotted newt *(Notophthalmus viridescens)*. This salamander occurs statewide and is unique in several ways. Adults remain in water most of the year where they and their larvae act as predators of insects and other amphibians. They occupy both vernal pools and ponds with fish. Toxic secretions from glands in the skin render them distasteful to fish, bird, and insect predators. Females lay eggs in spring one at a time by gluing them to a folded leaf. The larvae emerge in mid- to late-summer as an eft that becomes brightly colored in orange or red. They live in the forest for about seven years before returning to their pond of birth to mate. Newts are often encountered in woodland vernal pools and ephemeral pools in dirt roads.

The mix of salamander larvae, tadpoles, and newts and other predators creates a tumultuous and dangerous aquatic world. Interactions among the species have dramatic effects on growth and survival that compound the effects generated by pond hydrology.



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***(Inset above)** A tadpole of the eastern spadefoot toad in the process of metamorphosis: note the presence of both forelimbs and hind limbs. **(Inset below)** This Cope's gray treefrog will soon resorb its tail and emerge as a froglet. Photo by R.W.VanDevender. **(Above)** An adult Cope's gray treefrog. **(Below)** An adult eastern spadefoot toad. Photo by R.W.VanDevender.*

By the time the herbaceous tadpoles of the warm weather breeders hatch from their eggs, the predaceous larvae of tiger, spotted, and marbled salamanders have reached maximum size. Adult newts and a host of insect predators, including giant water bugs *(Lethocerus)*, dragonfly nymphs, and aquat-

R.W. VanDevender

©Lynda Richardson

R.W. VanDevender

ic beetle larvae, have long since entered vernal pools. All these predators consume large numbers of tadpoles and salamander larvae. The larger the predator, the larger the amphibian it can subdue and eat. It's a wonder that any individuals make it, especially in those pools loaded with such predators.

Not only are there predators in the water, there are also predators that come to vernal pools seeking dinner. Herons, like green and great blue, are adept at catching tadpoles in shallow water. Raccoons are able to catch tadpoles and salamander larvae when the pools are nearly dry, leaving only a small pool with high concentrations of animals. I have seen northern watersnakes *(Nerodia sipedon)* in vernal pools catching and eating amphibian larvae. I caught one once with a swollen belly and caused it to regurgitate a nearly full-grown tiger salamander larva. It had just swallowed it, as the larva was still alive.

And if pool drying and predators were not enough, the densities of the tadpoles and salamander larvae themselves play a role. When densities are high, larvae often take longer to develop and metamorphose at smaller sizes than they do when densities are low. Food resources can be reduced by large numbers of hungry larvae. Predation also influences the density effects. Thus, actual rates of larval development, size at metamorphosis, and survival depend on the complex interactions of all these factors. Each pond, then, is a unique ecosystem with variable mixes of hydrology and densities of predators and prey.

Across the Commonwealth, each woodland vernal pool, puddle in a dirt road, isolated ditch, and water-filled tire rut contains a special combination of tadpoles, salamander larvae, newts, and insect and other invertebrate predators. The mix of species present and physical dynamics of the pools varies geographically. The pools come in all shapes and sizes, mostly small. Studies of these dynamic little wetlands incorporated in school science classes or in one's self study of Virginia's natural bounty can provide source material for many subjects.

The vernal pool so full of tiger and marbled salamander larvae and toad and gray treefrog tadpoles was now completely dry. I know that some of them survived because I found several recently metamorphosed individuals under nearby logs and rocks in the forest. But some did not make it, as the carcasses missed by the herons were drying in the July sun. As long as the vernal pool and the surrounding habitat persist, the frogs, salamanders, and their predators will be back next year to repeat this ancient drama.

Joe Mitchell teaches conservation biology at the University of Richmond and is the author of The Reptiles of Virginia.

A companion article on vernal pools appeared in the April, 1997 issue of *Virginia Wildlife.*

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(Top) *Pinewoods treefrogs call and breed in summertime in the coastal plain of Virginia.* ***(Above left)*** *A pair of adult red-spotted newts in the process of mating; the dark one is the male.* ***(Above right)*** *Dragonfly nymphs are predators of small tadpoles and salamander larvae; note the jagged mouth parts.* ***(Above)*** *One of the potential dangers of breeding in vernal pools is that the water may dry up before the salamander, pictured here, and tadpoles can emerge.*

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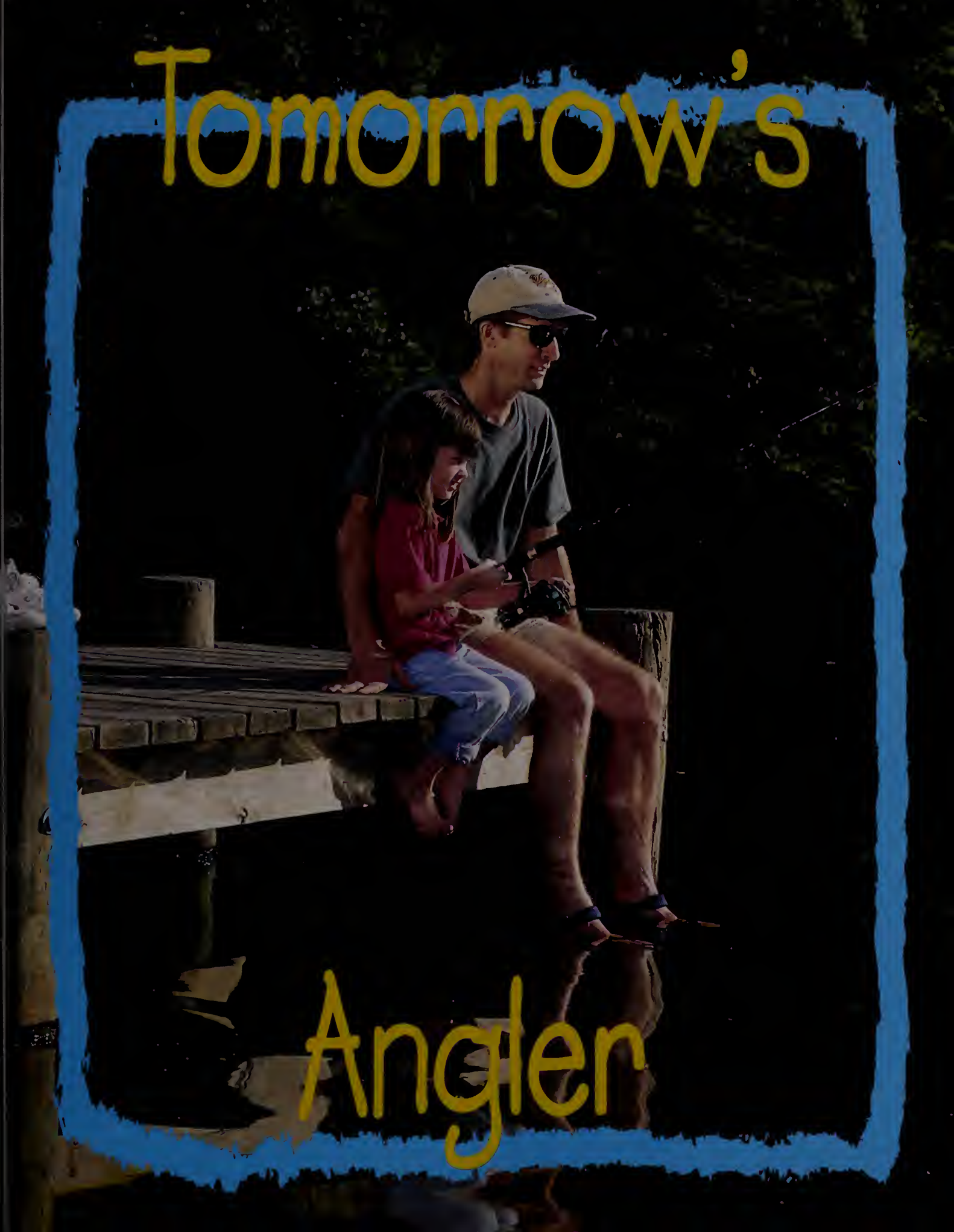
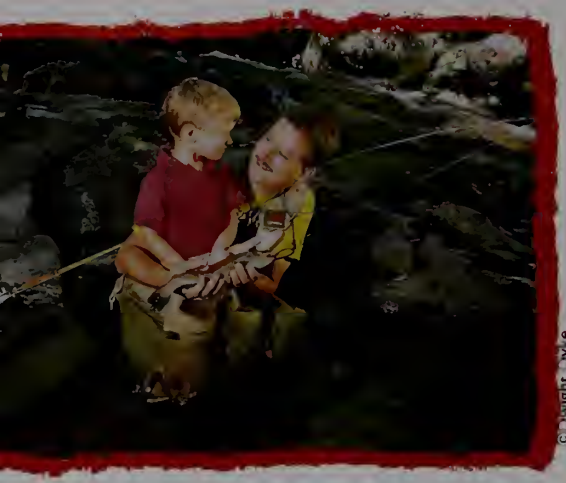
Tomorrow's Angler





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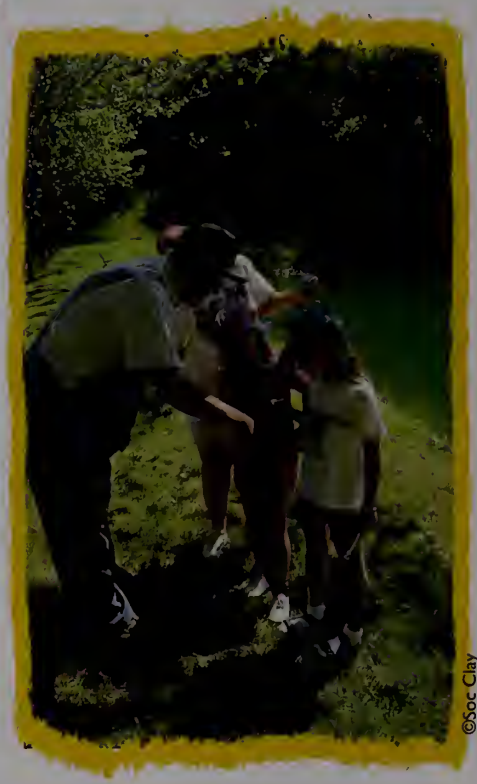
by King Montgomery

Fishing is at least as much about people as it is about fish. Fishing *is* people, places, things and values. A microcosm of the larger society, it provides a meaningful opportunity to practice and teach the old, seemingly forgotten Golden Rule: treat others as you wish to be treated. Live by the rule, lead by example and impart it to an important segment of our wonderfully diverse population—the children. For they are the ones who must face the future, and be the users and protectors of our land, air and water, and of one another.

Sportfishing is a wholesome, family recreation that is fun, interesting, stimulating and takes place in some beautiful places where we can appreciate the wonders of nature. Water is the source of all life and on it and around the edges where it meets the earth, it is a friendly place to spend time with youngsters; to get to know them and them you. And most important, it's a great place for children to learn to feel good about themselves and their world.

The small red-and-white plastic bobber rests quietly on the calm water. It is a doorway into another world, where unseen creatures swim, burrow, creep and float; some large, many medium-size, others quite small, even microscopic. The early morning sun is just below the trees on the far side of the pond and the sky is painted in impressionistic hues of pink, orange and gray, with a hint of blue. A small flock of geese in a loose V-formation fly low over the quiet water and flare their wings for a landing. Birds sing in the trees at waters edge, occasionally darting from their perches to catch an insect on the wing.

The fish in the pond stir, too, and the bobber moves ever so slightly, gently rippling the water around it. "Watch your bobber, Sally!" The young girl focuses her attention



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from the geese to the plastic float just as the top of it disappears from the air into the depths of the water world. She raises the rod tip and is fast to a scrappy bluegill, one of the many freshwater sunfishes prevalent in almost every pond, lake, reservoir and river in Virginia.

"That's a beauty!" exclaims her proud father as Sally lifts the bluegill into the boat. She has learned how to hold the fish so the spines on the back don't prick her fingers while she removes the hook. The fish is fat-bodied, healthy and colored like the rainbow with blues, yellows, greens and a brilliant orange on the throat that looks like the morning sky. She releases this one, although these panfishes are so plentiful that anglers may keep some for the dinner table without disturbing the population.

"That was fun," she says, putting another wiggling nightcrawler onto the hook.

"Nice job. You're getting pretty good at this," says her father.

They watch their bobbers together while taking in the surroundings. A mallard pair flies fast down the center of the pond, and red-winged blackbirds cavort in the rushes along the bank. The chattering of squirrels echoes from the trees. And they talk about a lot of things: her school and the friends she has made; how she likes science class the best, but geography is fun, too. But, just as important, they talk about the relationship between the air, land and water, and the plants and animals that are all part of the whole, one depending on the other. And how people are the only animals with the power and, all too often, the inclination to damage or destroy this interdependent web of life. We all do live downstream—and must find a balance in our actions to preserve the "tomorrows" in addition to enjoying the "todays."

"She's ready for a good spinning rod," thought the father, remembering her birthday next month. The child's spincasting outfit has served its purpose and now it's time to replace the worms with artificial lures and plastic baits, stepping up to the next skill level of the challenges of catching fish. Her younger brother is about ready to use the spincasting rig and old enough to spend at least a few hours on the water. Their mother can join us and the foursome can make time on the pond or at the nearby lake a real family affair.

Sally was onto another bluegill and squealed with delight as the powerful little fish pulled against the bent rod. "Can we start keeping some and have a fish-fry tonight?" she asks.

"Sure," he replies. "We'll need at least 14 or 15 of that size or larger," and dropped the fish into the mesh basket hanging from the side of the boat. Fortunately, she was getting pretty good at cleaning fish as well as catching them.

The sun was higher now and the day creatures had taken over from those of the night. A great blue heron silently and deliberately prowled the shoreline near the tree that had fallen into the water. A regal osprey dove headlong into the water at the far end of the pond, struggled a few seconds on the surface, then slowly lifted back into the sky clutching a wriggling fish; breakfast for its chick in the nest of sticks at the top of an old, dead tree.

Fishing can teach a lot about life—and death. Both are part of the same equation; you can't have one without the other. The bluegill in the basket would serve the same purpose as the fish clutched in the osprey's talons. Each performer in life's drama must play its assigned role.

The father pulled two frosty, space-age material plastic mugs from the ice chest. "Want some water, Sally? "Yeah," she answers, taking the proffered glass. As he raises his mug of clean, cool water, he pauses to read the inscription etched in the plastic, even though he already knows it by heart:

"The world we share is only given to us in trust. Every choice we make about the earth, air and water around us must be made with the objective of preserving it for generations to come. This is how we will be judged."

As much as any other outdoor recreation, fishing can be enjoyed at any age, by everyone. Those who start fishing early in life have a better chance of staying interested in angling when they're older. And with the fishing resources in Virginia—VDGIF manages 25,000 miles of fishable warmwater streams, 13,047 acres of small impoundments and 163,295 acres of large impoundments—visitors and residents can fish for a lifetime. "The Angler' Guide to Virginia Freshwater Sportfish," is available from Aquatic Education, VDGIF, 4010 West Broad St., P.O. Box 11104, Richmond, VA 23230-1104.

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Virginia Outdoor Writers Association Contest Winner

First place winner in this years Virginia Outdoor Writers Association's essay contest went to 17-year-old Alden Fahy, a student at Liberty High School. We at *Virginia Wildlife* are pleased to reprint his winning essay.

Hunting

The air was crisp and cold as I left the house. In the early morning moonlight I put my tree stand over my right shoulder and with my bow in my left hand I set out for the woods. After crossing a field, I turned on my flashlight and entered the woods. I quickly made my way to my preselected tree and began to attach my tree stand.

After securing my stand to the tree, I put on my safety harness, got on the stand and ascended the tree. After reaching a height of approximately twenty-five feet I stopped. I pulled my mask down over my face, put on my arm guard and release, and pulled my bow up from the ground. I settled myself on the seat Just as the first hint of daylight could be seen in the sky.

The sound of a footstep to my right electrified my body. I turned my head ever so slowly. There stood a small four-point buck. I watched as he slowly made his way down the trail which led almost directly beneath my stand. As I watched, another four-pointer emerged, followed by yet another.

As I slowly and silently began to place the release mechanism on my bowstring, the first deer looked straight up and stared directly at me. I froze and remained utterly motionless, hoping he would not notice me and alert the others. However, he stamped one of his front hooves, and the others became aware of my presence. As I sat completely still, a beautiful six-pointer emerged directly in front of me. I now had four deer staring at me, but since none of them could smell me, they were not sure whether or not to be alarmed. Then, as the first deer began to circle my tree, he caught wind of me. He gave a snort, and all four deer bounded back the way they had come. My muscles felt like jelly as the woods fell silent once again and the disappointment set in.

I was unable to get a shot at any one of the deer, but it was a wonderful experience nevertheless. Simply to observe those magnificent creatures in their natural habitat is incredible. Their speed and grace are unparalleled.

Deer hunting has taught me many lessons. It has taught me patience. An impatient hunter will probably never see an animal. I have also learned to discipline myself. I must force myself to get out of bed at 4:30 on a Saturday morning. Once in the woods, however, I am always glad I got up. Hunting teaches ethics as well. For example, a deer just on the other side of a property line could be shot and dragged across the line, but only an unethical hunter would do this. I have passed up many shots that could have been taken because I was slightly unsure of the shot, and the last thing I want to do is wound an animal.

Hunting is an excellent activity. Not only is it exciting and fun, but it teaches morals and helps one become a better person. It teaches one to respect the environment and to respect others. Hunting has certainly helped shape who I am today. ☐

"Whip" Your Land into Shape for Wildlife

Heard any bobwhites or meadowlarks singing lately? If not, maybe it's because they are losing their homes. They often have nowhere to hide or raise their families. The loss of some types of wildlife habitat, especially for birds and other small critters, is an increasing problem in Virginia.

You can help reverse this trend by making a home for wildlife on your land. In the March "Quail" issue of *Virginia Wildlife*, Game Department Biologist Steve Capel mentioned the opportunities of the new Farm Bill programs. Here are some highlights from one of these programs called WHIP.

What is WHIP?

The Wildlife Habitat Incentives Program is a voluntary program which offers private landowners cost-sharing to install practices to improve wildlife habitat. You don't have to be participating in any USDA program. All you have to do is own or have control over the land. The program is administered by the USDA Natural Resources Conservation Service (NRCS).

When is the Program Available?

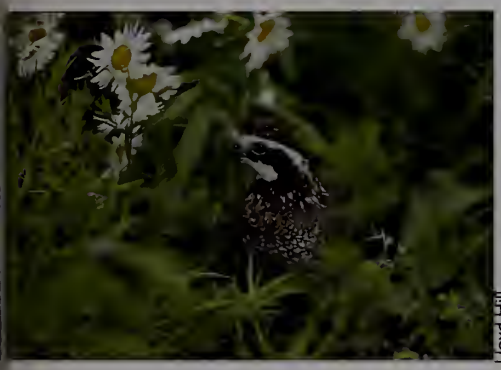
Although final rules and details are being developed, signup is expected to begin sometime in June. The signup will be continuous.

Who is Eligible?

Private landowners can apply as well as groups such as the Boy Scouts, Nature Conservancy, private companies, sporting groups, hunt clubs, environmental/conservation organizations and others.

How Does the Program Work?

- 75 percent cost-sharing for installation of practices
- $10,000 maximum cost-share per applicant
- 10-year contracts and maintenance agreements
- native species and habitat will be emphasized
- types of practices include: disking, prescribed burning, planting habitat, converting fescue to warm season grasses, establishing riparian buffers, creating habitat for waterfowl, and installing filter strips, field borders and hedgerows.



Lloyd Hill

Is There a Special Emphasis?

Yes, there are four categories that have been identified as having special needs. Only these categories will be cost-shared. They include:

- early successional (grassland, cropland, old field) habitat
- riparian (streamside) habitat
- bird migration corridors (songbirds, waterfowl and shorebirds)
- decreasing (rare) habitats within Virginia

This program will help improve habitat for well-known species like quail, rabbits, and waterfowl. It will also provide for the first time, cost-sharing to improve habitat for songbirds, bog turtles and other species.

How Do I Apply?

- Sign up at your local NRCS or USDA office (check the phone book for nearest location)
- NRCS will determine eligibility. Applications will be competitively ranked within the state. Certain areas and practices will receive higher ranking based on their value to wildlife.
- NRCS will help you develop a Wildlife Habitat Plan working closely with the Virginia Department of Game and Inland Fisheries.

Where Can I Get Information?

Note that the final program details may change some of the specifics mentioned here. To find out more, check the Internet at www.nhq.nrcs.usda.gov or contact your local NRCS office. ☐

Letters to the Editor

The March issue of *Virginia Wildlife* focused the management efforts of the Virginia Department of Game and Inland Fisheries for bobwhite quail. This message, concerning the March issue, came to us via E-mail from our Home Page on the Internet.

You don't know how long I have looked for someone to take the lead in trying to save these birds. I started hunting quail back in the mid-50s. I have never fully understood what happened to the population, but after reading the report, I found the missing information I needed. I plan to let my readers know in the *Mid-Atlantic Outdoors* how they can receive their own copy of the Virginia Bobwhite Quail Management Plan, by E-mail, phone, and mail.

Thanks,
Mike Morrison
Publisher, *Mid Atlantic Outdoors*
Richmond

Morrison ran the excerpt from the Virginia Bobwhite Quail Management Plan in the May/June issue of Mid-Atlantic Outdoors.

Southside Virginia Lakes You Should Know

Anglers on their way to larger, more publicized lakes like Buggs Island, Gaston and Briery Creek might take a closer look at some of the smaller Department of Game and Inland Fisheries lakes. They'll find little competition, decent boat ramps and some very aesthetic surroundings. Following are some lakes that don't get a lot of attention:

Lake Brunswick: Lake Brunswick is a good fishery, according to Fisheries Biologist, Dan Wilson. "Crappie, bluegill, and redear sunfish are abundant in keeper sizes," he said. Largemouth bass have a size limit of 12 inches and are not as numerous as they have been in years past. "However," said Wilson,"samples show that 13 percent of the adult bass (bass 1 year old and older) population is still 15 inches or larger, with .5 percent over 20 inches long, which is down from 6 percent in 1990. If the bass population structure shows fewer large bass in the next sampling, a slot-limit may be imposed, Wilson predicts. Bass are not only a high profile fish, they also 'drive' other fisheries in small impoundments. Loss of big bass often means an overpopulation of stunted sunfish."

There are some nice redear sunfish (shellcrackers), but since most spring sampling targets bass, it was too early for redears, and not a lot of hard data was collected. Anglers were catching nice redear as early as late-March this year from around the bridge over the channel that connects the two portions of the lake. There's a good crappie population averaging about 8 inches in size, and there are some good-sized yellow perch. Channel catfish are stocked every other year. The Department-owned lake has a 10 horsepower limit on motors. Those with larger motors are required to tip them out of the water and disconnect the fuel lines. The boat ramp is located off Route 638 north from Route U.S. 58, east of the town of Edgerton in Brunswick County.

Lake Gordon: Based on samples taken in 1996, Fisheries Biologist Dan Wilson regards Lake Gordon, in Mecklenburg County, as a "sleeper" and one of the best kept secrets among small southern piedmont lakes. "It gets some bank fishing pressure around the dam and the boat ramp, but very little fishing pressure otherwise, probably because big favorites like Lake Gaston and Buggs Island are close by," he figures.

Wilson revealed that samples in 1996 showed that 36 percent of the adult bass (bass 1 year old and older) population was over 15 inches with 7.5 percent of it over 20 inches! Lake Gordon has a 12 inch size limit on bass. There is a 10 horsepower limit on motors and anglers with bass boats can tilt up their larger motors and disconnect fuel lines. Wilson recommends that anglers work the lily pad beds in the upper part of the lake, but beware of the many stumps in the shallows of the upper end if motoring into the area.

Gordon also has a good redear sunfish population with 8-inch fish common. There are a lot of crappie but they are stunted, said Wilson. Bluegill are stunted as well, he said, because of a large population of gizzard shad in the lake. There are some bluegill up to 6½ inches in the lake but they are slow-growing adult fish. "Gizzard shad compete with the bluegill for food, and more importantly, bass eat more shad simply because they are more available," said Wilson. "As a result, fewer bluegill are eaten and their populations are not kept in check, resulting in stunted fish." He adds that channel catfish are also present and are stocked every other year.

This past winter, three Christmas tree fish attractors were established in three locations near the dam and the boat ramp. Fishing alongside and into them should be productive since fish are readily drawn to them.

To get to Lake Gordon, take Route U.S. 58 west from South Hill to Route 664, then turn right towards Union Level. Watch for Route 799 on the right which takes you to the boat ramp and parking area.

Lake Nottoway: The bass population has increased in size overall in this lake according to Fisheries Biologist John Copeland. "Samples show that there are still a lot of largemouth bass in the 8 to 12 inch range, but, when compared to the 1989 and 1992 samples, more of them are in the 12 to 15 inch range and above," he said.

A slot limit of 12-15 inches, with a five fish per day creel limit was put into effect in 1990. Under a slot length limit, anglers can keep bass under 12 inches long and over 15 inches long, but they must release bass that are 12 to 15 inches long. This limit has apparently made a difference in the Nottoway Lake bass population. Sampling in 1996 showed that 13 percent of the lake's largemouth bass were over 15 inches in length, with 3 percent over 20 inches! In 1989, only 2 percent were over 15 inches and one percent over 20 inches.

The change in the bass population is the result of anglers keeping bass less than 12 inches long. When they do, the remaining bass have less competition for food. Those left behind grow faster and bigger. This same size limit helped make Briery Creek Lake into a trophy bass factory. According to Copeland, anglers should continue to harvest small bass. He will evaluate the population again in 1999 to see if this harvest is helping to produce bigger bass in the lake.

Bluegill in Lake Nottoway average about one-third of a pound, although, Copeland said, the sampling was not done at the prime time for bluegill. Redear sunfish (shellcrackers) are in the ½ to ⅔ pound range and crappies are running up to a pound. Channel catfish are stocked on alternate years and should provide good angling opportunities.

Nottoway is a 188-acre Department-owned lake on Lee's Creek in Nottoway County. Local residents often refer to it as "Lee's Creek Lake." The lake has a 10 horsepower motor limit and Copeland advises caution when running through parts of the lake. A lot of standing timber was left in the lake when it was built. Over the years many trees have now fallen down so there are many stumps and logs just under the surface, which can make it difficult to navigate.

The lake is located six miles north of Blackstone. From Route U.S. 460 West, exit right onto Route 606 and go about 5.1 miles to the lake's boat ramp and parking lot. The lake can also be accessed from Route 360 west of Richmond. From 360 West, head south on Route 153 to Spainville; turn right on Route 610, then left on Route 609; and right again on Route 606 to the lake. □

For a Lifetime of Outdoor Fun!

Purchase a Virginia Resident Lifetime Hunting or Fishing License

A great buy

Available for only $250
($500 for non-resident licenses)
Contact: Diane S. Davis
Permitting Section
Department of Game and
Inland Fisheries
4010 West Broad Street
Richmond, Virginia 23230-1104
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Photo TipS

By Lynda Richardson

Sharing

Boy, do I love to talk. I get it honest...just ask my dad. And along with talking I love to share information and experiences. Over the years, I've found the best way to get a lot of talking and experience sharing in is to give slide lectures. During a lecture, I have a captive audience with whom I can regale tales of mercenaries, hippo charges and demanding editors.

A few months ago, I was asked to hang a collection of my work at Westminster Canterbury, a retirement home in Richmond, Virginia. In conjunction with my show, I was asked to lecture to the residents about the images and how they were created.

The night came and I was a little nervous because it was an unusual crowd for me. I was worried about keeping them entertained especially after one woman in a wheelchair enthusiastically rolled in and upon hearing my introduction proclaimed aloud that she hated animals and rolled back out.

But as I walked up to the podium and looked out into the crowd, I saw friendly, expectant faces. As the lights dimmed and the slides began to brighten the darkened auditorium, I relaxed to delighted chuckles and murmurs of surprise. Applause punctuated my moaning call of a lion, whooping yelp of a zebra and the head shaking rumble of an elephant.

Afterward, I talked with many of the residents. One fellow had a son who had worked for National Geographic. Did I recognize his name? Another gentleman enjoyed his time on Jekyll Island, Georgia photographing wildlife while working as a full time Episcopal vicar for a local mission. A few weeks later, he sent me some marvelous samples of his work laminated with quotes from the Bible.

But one woman I met had been a biologist in her early years. Describing days of slugging through the mud for her master's thesis left me somewhat startled. I looked at her and tried to envision the delicate, aged woman before me in chest waders. But the sparkle of her eyes made me a believer. It was at that moment that it really hit me: one day I will be the one enjoying slide lectures from that viewpoint, reliving my wildlife days through a youthful lecturer.

This photograph of a lesser siren totally surprised members of a local garden club unaware of its existence in Virginia. Photo by Lynda Richardson.

I do not have much free time to give slide lectures anymore but I would like to encourage you to consider it. Through slides, you can share experiences with those who are no longer able to or who have never had the experiences that you have to offer. Isn't that why we take pictures in the first place? And let me assure you, sharing goes both ways. My audiences have given me much in return. Through their suggestions, comments and enthusiastic observations, I have improved my photography and been made aware of wildlife sightings which provided great shooting opportunities. But, best of all, I now have many friends who I would have never met otherwise, friends with whom I enjoy sharing wildlife experiences. Friends who will politely listen to me talk.

News You Can Use

When giving slide shows on a regular basis, don't show your original slides! Have top quality duplicates made from your originals. Original slides that I showed for years are now badly faded whispers of their former selves. You can always replace a dupe but not an original. I get great dupes for $0.60 a piece and it's well worth it for protection of the original.

Recycle your plastic film canisters, metal film cassettes and plastic slide boxes! Thanks to Eastman Kodak, arrangements with various plastic recyclers around the country have been made and now you can bring your "empties" to participating camera shops around the country. Canisters and cassettes are recycled, plastic boxes are reused. If your local camera shop doesn't participate, ask them to join in by contacting their local Kodak representative!

Keep that shutter finger limber! Don't forget *Virginia Wildlife* magazine's "Wild and Wonderful Virginia" photography contest. Submissions are already coming in. For more information, check out "Photo Tips" in the 1997 March issue of *Virginia Wildlife* magazine. Deadline is October 3, 1997. Winning entries will appear in the January 1998 issue. Prizes will be awarded! Good luck! ☐

JUNE Afield

by Jack Randolph

It looked like a beautiful bass bug sitting there on a sprig of pickerel weed along the edge of the lake. You can appreciate my surprise, when upon picking it up, instead of holding a creation of cork and feathers the object in my hand was alive and quite an unhappy insect! It was, I learned later, a cicada, the so-called 17-year locust. To me it was the bug that must have served as the model for most of the fly rod bass bugs ever made.

June is a big month for cicadas. Last year we had the mother of all cicada hatches in Virginia. Briery Creek Lake was covered with them. There was a real cicada bonanza at Lake Orange where the carp went bonkers over them. Using cicadas for bait, Lake Orange anglers caught a mess of broad shouldered carp, some weighing from 18 to 25 pounds. In addition to carp, anglers throughout the state caught an occasional bass on the big bugs.

Speaking of carp, Larry Moody of Petersburg saw some folks feeding bread to ducks on a local pond. Now, the Virginia Department of Game and Inland Fisheries cautions against feeding ducks this way because it can cause migratory duck numbers to rise artificially at local ponds. This in turn increases the likelihood of disease for both resident and migratory birds. But the point here is that every time Larry Moody watched someone toss a handful of bread to the birds a bunch of hungry carp would rise to compete for it. So, Larry goes home and hauls out his fly tying vise and creates a bunch of pure white flies, tied to imitate pieces of bread. They worked.

Come to think of it, if we have a low water period this month stalking carp with a fly rod on clear rivers is prime sport. Wooly worms of various colors are the flies of choice.

Don't look now, but do you realize that June is the first month of the year in which there is no hunting season? Actually, June and July are the only two months of the year in which there are no scheduled open seasons unless you wish to count nuisance species such groundhogs. The next opening day comes in August when the crow season opens. Crows are plentiful, and they are predators. At least one study has shown them to eat Canada goose goslings and there are strong indications that they may also find easy picking at bobwhite quail nests, so look for that season to open in August.

In June we begin to see the summer fishing patterns move in. Typically, anglers will fish for bass with top water lures early and late in the day and at night. During the day they fish deeper using Carolina-rigged plastic worms or lizards.

Of course, June brings on those higher water temperatures that can be deadly to striped bass that are accidentally caught and released, particularly in areas of low salinity. There is an open season for catching striped bass in tidal waters this month. It carries over from May and closes June 15. Anglers are permitted to keep two striped bass measuring 18 inches or longer, but not longer than 28 inches. The word among caring anglers is to avoid catching and releasing stripers in hot weather because too many of the released fish die.

If you like to go around shaking fly rods at things, June is a good month to catch bream. For top quality bluegills try Briery Creek Lake Lake Western Branch, Lake Prince, Lake Cohoon and Chickahominy Lake. There are also many Game Department-owned ponds that produce fine bluegills. Nottoway Lake is one of these.

Also when we think of sunfish we sometimes ignore the stout redbreast sunfish that share the cooler rivers with smallmouth bass. These husky sunfish, often called "sun perch" by locals, are great fun on a fly rod.

June is also a month for renewal for wildlife. This is the time of the year when we are most likely to encounter fawns, baby rabbits and other wildlife. No matter how cute they look or how "lost" you believe them to be, the best thing to do is to leave wildlife babies strictly alone. □

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Recipes

By Joan Cone

Let's Say a Kind Word For The Carp!

As with many foreigners, the carp is not always appreciated by everyone. However, unlike the English sparrow and the starling, carp are both fun to catch and good to eat—if you know how. They were introduced widely along the eastern seaboard as a food fish before the American revolution and soon thereafter. The idea was to provide a source of protein for mill ponds. Now that angling is mostly for recreation, enthusiasm for carp has waned. However, they grow big, fight hard and long and can be kept and eaten with a clear conscience. Here is a recipe you and your family will enjoy.

Menu

Carp Cakes

Crispy Potatoes

Red Cabbage And Apples
(For slow cooker)

Carrot Salad

Key Lime Snow

Carp Cakes

2 pounds carp fillets
1 egg
1 teaspoon salt
2 cups bread crumbs
Paprika to taste
Butter or margarine

Cook carp (bake, steam or microwave), then remove skin and bones and flake fish into a bowl. Add remaining ingredients and form into cakes. Saute in butter or bake in a well-buttered baking dish until tops brown. Makes 4 to 6 servings.

Crispy Potatoes

4 medium russet potatoes, cut into large wedges
1 tablespoon vegetable oil
¼ teaspoon freshly ground black pepper
⅛ teaspoon salt

Place potatoes in a large bowl and add cold water to cover. Let stand for 15 minutes. Preheat oven to 425°F. Spray a nonstick baking sheet with vegetable cooking spray. Set aside. Drain potatoes in a colander. Spread on a double layer of paper towels. Cover with a second layer of paper towels. Press down on the towels to dry potatoes. Transfer potatoes to a clean large bowl. Sprinkle with oil, pepper and salt; toss gently to combine. Arrange seasoned potatoes in a single layer on prepared baking sheet. Bake potatoes for 20 minutes. Using a spatula, turn potatoes and bake until golden, about 20 minutes, turning baking sheet after 10 minutes for even browning. Serve immediately. Serves 4.

*Red Cabbage and Apples
(For slow cooker)

1 large head of red cabbage, shredded (about 12 cups)
2 apples, seeded and chopped into small pieces
½ cup red wine vinegar
2 tablespoons water
3 tablespoons brown sugar
Seasoned salt

In a 5-quart electric slow cooker, combine the red cabbage and apples. Mix together the vinegar, water and 2 tablespoons of the brown sugar. Pour over the cabbage mixture. Cover and cook on the low heat setting 6 hours, or until the cabbage is tender. Stir in the remaining 1 tablespoon brown sugar and seasoned salt to taste. Serve immediately as a vegetable side dish or refrigerate until cold and serve chilled. Makes 6 servings.

Carrot Salad

3 cups shredded carrots
1 can (17 ounces) apricot halves, drained and chopped
½ cup sliced celery
⅔ cup raisins
¼ cup chopped walnuts, toasted
½ cup salad dressing or mayonnaise

Combine all ingredients, tossing well. Cover and refrigerate. Makes 6 to 8 servings.

**Key Lime Snow

2 envelopes unflavored gelatin
½ cup cold water
¾ cup sugar
½ teaspoon grated Key lime or lime peel
½ cup Key lime or lime juice
1½ cups boiling water
4 egg whites

In a large bowl, sprinkle unflavored gelatin over cold water; let stand 5 minutes. Stir in sugar until blended. Add boiling water; stir until gelatin is completely dissolved, about 3 minutes. Add lime peel and juice. Chill until slightly thickened, about 15 minutes. In a medium bowl, beat egg whites until stiff. While beating, gradually add gelatin mixture; beat until soft peaks form. Spoon into 8 dessert cups or a serving bowl; chill until firm, about 2 hours. Garnish, if desired, with twisted lime peel. Makes about 8 servings. □

* Recipe from *The Best Slow Cookbook Ever* by Natalie Haughton, HarperCollins, Publishers; October, 1995; concealed Wire-Obinding.

** Recipe Taste Tested by The Knox Kitchens.

Habitat

by Nancy Hugo

Elderberry

"The common elderberry, known to botanists as *Sambacus canadensis*, is one of the most abundant, most useful, most healthful, and yet most neglected of our native wild fruits."

With that, wild foods guru Euell Gibbons began his 1962 discussion of our native elderberry, a deciduous shrub that is no less neglected—or useful—now.

In a park near my house is a shallow ditch that used to be lined with blooming elderberry at this time of year, but because residents of new houses in the area insisted that it be mowed, the ditch is now lined with elderberry that continues to come up but never gets tall and mature enough to bloom. Because it's so tenacious, its roots continuing to spread despite the mowers, and I have a dream it will someday be allowed to flower and fruit again. I picture residents of the nearby subdivision making elderberry wine, frying elderberry fritters, and throwing elderberry flowers into their pancakes. What they'll also gain, if the shrubs are allowed to bloom and fruit, is an incredible rich source of summer food for songbirds. The list of birds that relish elderberries is as long as my arm, but, for starters, count the bluebird, indigo bunting, cardinal, catbird, phoebe, titmouse, hermit thrush, red-eyed vireo, and red-bellied woodpecker among the birds that consume elderberries.

Lucky for aficionados winged and human, elderberry is easy to find in places where it's not mowed down. Native to Virginia, it can be found in every county of the state, and while it is most abundant in moist places like stream edges and ditch banks, it will tolerate drier conditions and can also be found along woodland edges, in hedgerows, and on roadbanks. Once you know what you're looking for, elderberry is hard to miss in June and July when its broad clusters of creamy white flowers are blooming. Look for a 6 to 12 foot shrub with pinnately compound leaves like a sumac's, and with flowers suggestive of Queen Anne's lace, but in broader clusters.

Elderberry; photo by Nancy Hugo

Wild elderberry has clusters of ¼-inch flowers 8 inches across; cultivated varieties of elderberry can have flower clusters 12 to 18 inches across. Because of these ornamental flowers and the useful fruits that follow them, elderberry makes a fine addition to a property one wants to make wildlife-friendly. Just don't plant it where you don't want it to spread, because it will.

Unlike so many fruit-bearing shrubs that we find in thickets, elderberry is also remarkably cooperative when it comes to giving up its fruit for consumption. Because it is thornless and carries so many berries on a single cluster, you can fill up a bucket with elderberries in a jiffy. The ¼-inch, round berries, which some people comb off with a wide-toothed comb, mature in late summer or early fall, turning from green to deep purple or nearly black. They lack acid and, therefore, aren't particularly palatable to humans unless properly prepared (drying improves them), but look no farther than to a book by Euell Gibbons or some other wild foods guru to find dozens of ways to prepare them. *In Stalking the Wild Asparagus*, Gibbons describes not only how to make elderberry wine (because elderberries are full of vitamin C, it "builds you up as it tears you down," he says), but also elderberry jelly, elderberry juice, and elderberry chutney. He also discusses some of the multitudinous medicinal uses of elderberry leaves, flowers, and fruits.

My favorite source of elderberry recipes, however is in Pamela Michael's *All Good Things Around Us*, a book that includes not only recipes for elder flower fritters, elder flower fizz, and elderberry soup, but directions in how to make elderberry cold cream, elderberry hair dressings, and even elderberry fishing floats. Not having tried them before, I'm particularly intrigued by all the recipes I've found for elderberry flowers, because I'd noticed the wonderful way these creamy-colored blossoms (called "elder blow") fall off the plant, leaving the fruit-producing portion of the flower intact. The simplest way to use them, according to Gibbons, is to toss them into a thin muffin or pancake batter. "It makes them wonderfully light and adds a distinctive and delicious flavor," he writes.

"In the future," writes Gibbons, "lets show more appreciation for this common shrub which stands by the roadside, freely offering food and drink and medicine and beauty." "It would be churlish," he said, "to refuse such graciously offered gifts." And that's no less true now than it was in the 1962. ☐

Safety

by Col. William Antozzi, Boating Safety Officer

Suddenly in Command

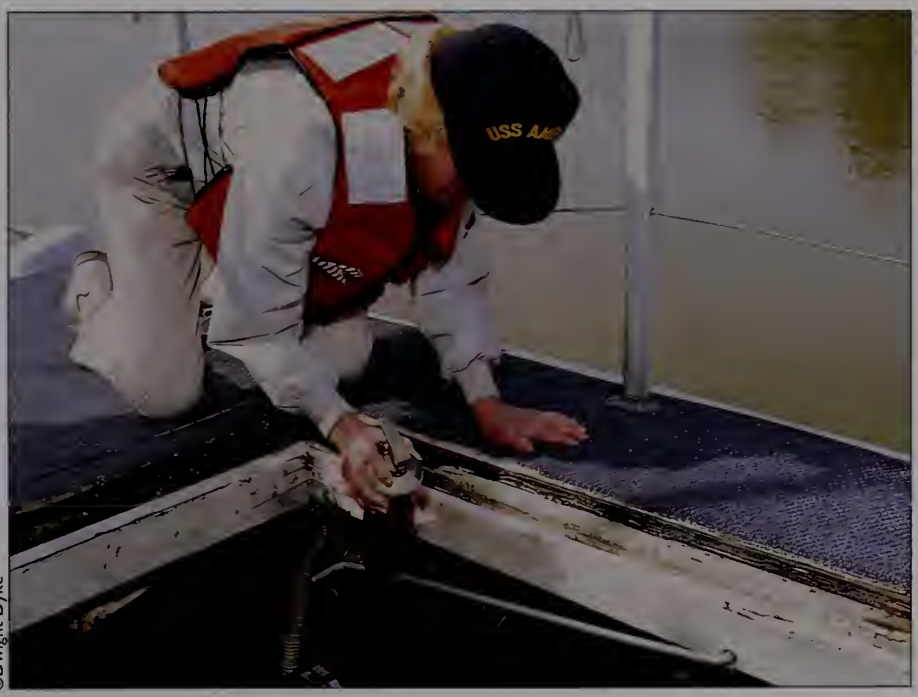
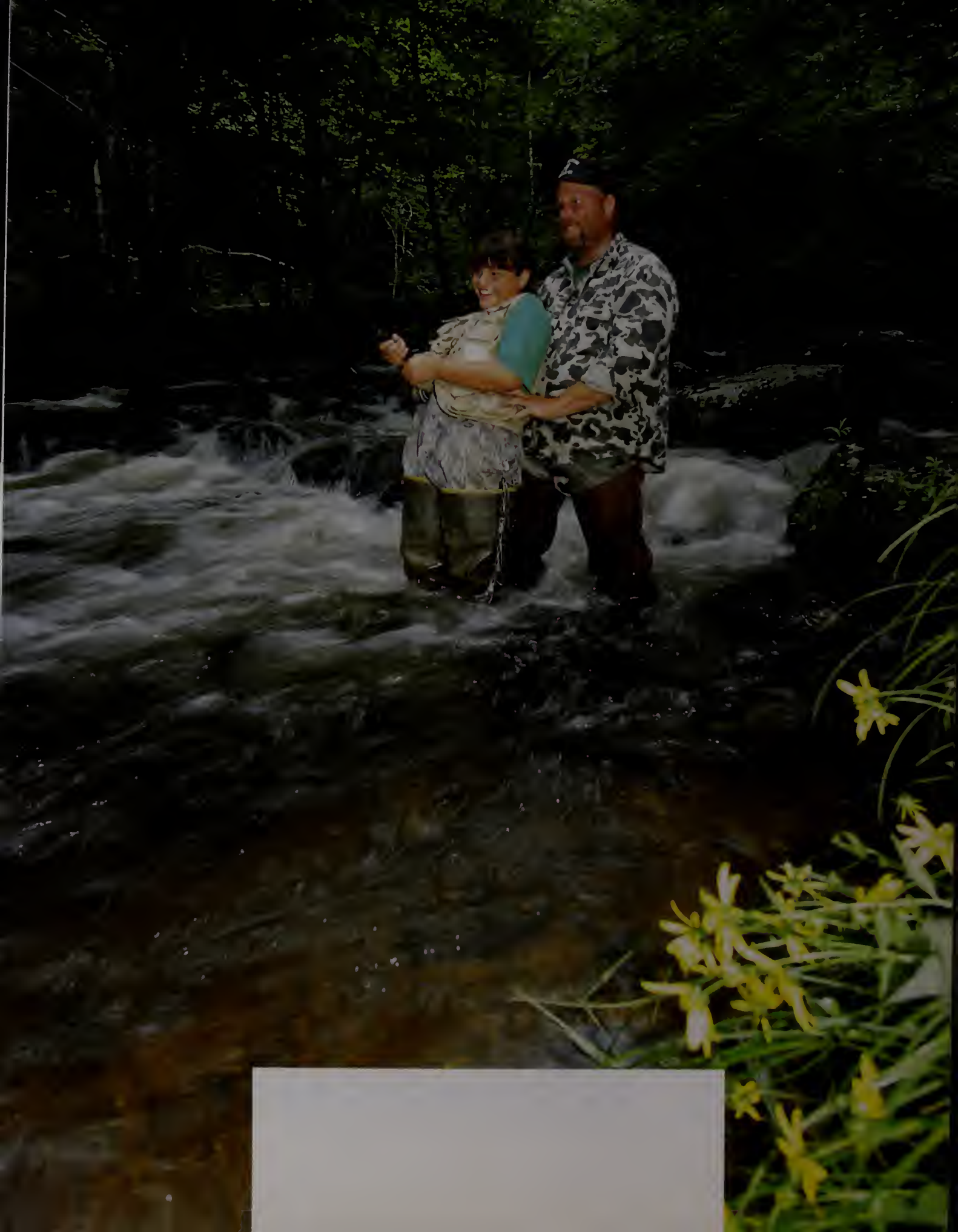
Boating is not an activity which should be undertaken alone. It is an activity for buddies and families or groups which do things together. We are not all experts in the many phases of boating and many go along for the ride without very much knowledge of what is going on. What would happen if you were an inexperienced passenger and you suddenly had full responsibility? Next time you go out on a boat, think what you would do if the skipper had a heart attack, broke a leg or fell overboard while you were along as his other only helper.

When you get into the boat, look around and find the personal flotation devices, throwable devices, lines (ropes), fire entinguisher, distress signaling devices, ladder, anchor, paddle, light and horn switches, bailing implements or devices and first aid kit. Watch what the operator does when the motor is started and ask how to switch fuel tanks. Ask about the boat and how it operates. Get to know the routine. If the regular operator is incapacitated, you must get the vessel back to home port and you must get the engine started. Since there are both manual and electric starting methods and many different types of engines, the starting method is something you should make a point to observe when you start out. Make certain the engine is in neutral and do not stand up when starting it in an open boat, because you may fall overboard.

Once the engine is running, shift into forward gear and accelerate gently while you experiment with the steering mechanism.

Some boats steer pretty much like an auto while in others the tiller is turned away from the direction in which you wish to move. Once the boat is moving, you can head toward a marina or some other safe haven. When you get to your destination, remember that, like landing an aircraft, the landings can be hazardous. Novices tend to come up to docks or piers too rapidly. Don't aim your boat directly at a pier or another boat. If you misjudge, you are likely to collide. Approach slowly and come alongside a pier or wharf. Although a boat settles quickly and slows rapidly, after the power source is shut down, it will continue to move. Without power a boat loses steerageway and is difficult to maneuver. Aim the boat to where you want to stop, shift to neutral and be prepared to give a last little spurt or to shift into reverse if required. If your boat is small enough, you can paddle the last few feet.

If someone falls overboard, shut off the engine, or put it in neutral, and locate the person in the water. Then start up and approach the victim from downwind—that is with the wind in your face, so you don't drift into him. When you are sufficiently close, stop the engine and throw a ring buoy or flotation cushion. If your aim was bad, throw more of them. You can also throw flotation jackets, picnic jugs and other objects which float. Toss a line to the person in the water, but remember to make your end fast to the boat. When you get him to the boat, before trying to get him aboard, try to get a flotation device on him or use a line around his body and under his arms and tie it to the boat so he can rest. If you can't get him into the boat, signal for help. Be sure to lower the anchor before you signal, so the boat won't drift. When in trouble, try to notify the Coast Guard or the Coast Guard Auxiliary. They have the know-how and equipment. □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